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ABSTRACT

The essence of television has heretofore been thought of as a distribution system, a means of moving pictures from one point to another. This conception has limited the possibility of the medium to the kind of programs shown on commercial television. But just as theater has its own kind of space, the stage, on which certain kinds of events are acted out, television also has a unique kind of space, videospace, and in this space a unique art can be created. The key creator in conventional television is the director, in videospace it is the mixer. The director is trying to give the impression of reality he is representing. The mixer, through creative mixing of images, is spontaneously discovering reality; he is presenting the act of discovery. And the mixer's art is preserved and played back on video tape. (JK)

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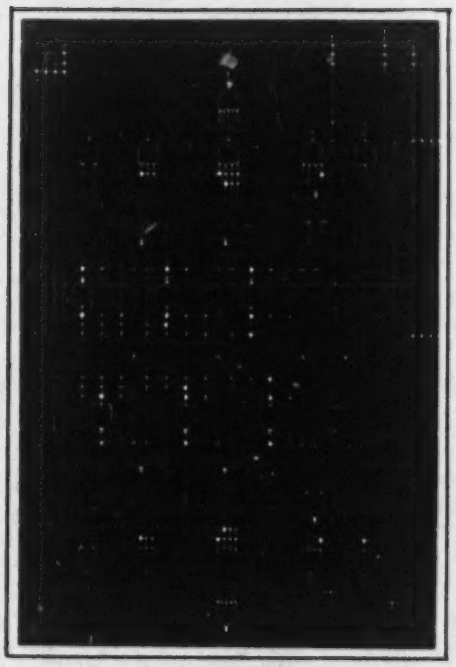

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VIDEOSPACE

Brice Howard

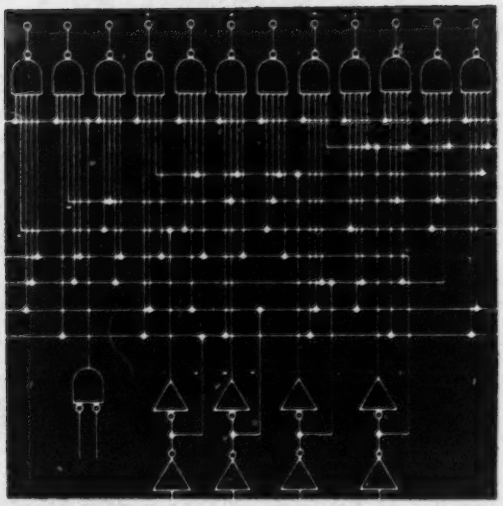
National Center for Experiments in Television 1972

The mass of an electron is 1/1835th

the mass of an hydrogen atom.

It is here.

It is material with which we can make.



i

hand made

make a point

home made

make a sentence

make up your mind

our Maker

home maker

union made

made in heaven

made in Detroit

made in USA

make a habit of

We are all makers.

make a p'e

do not make a mistake

much of what we do is making.

This piece of writing is a making. And it is also about a making and the making process in a medium which tends to inhibit what some feel is the best in the making process. Because of its dual nature.

make a schedule
make a program
make a decision
make up our minds

Television's remarkable nature has made it possible for a number of people to make money; some of them a great deal of it.

We have learned to make in a particular way in television in order that the system be maintained.

And, though for some it may appear simpler to make a camel pass through the eye of a needle, there are other ways to make in this medium than these we centrally sustain.

Indeed, there is one possibility for making that we have paid little attention to at all.

It is to this possibility you are asked to attend in this writing.

This newer way, whose first proponent painted his feelings on the walls of caves in pre-historic times.

We are not proposing a return to prehistory. The relationship drawn is more to the man struggling to objectify his environment in works representing his being: to the earth from which he

gathered the essences for his colors; to the places he set aside for his mysteries and rites. And for his living; to the act of making in a medium whose nature he seemed to have sensed. And one about which as centuries passed, he became sophisticated; even as he maintained the precarious balance between his questions and realizations -- and his own sacred, though passing, nature.

The electronic media have unique characteristics and qualities.

Electric television photography and sound have natural aspects which separates television from other media.

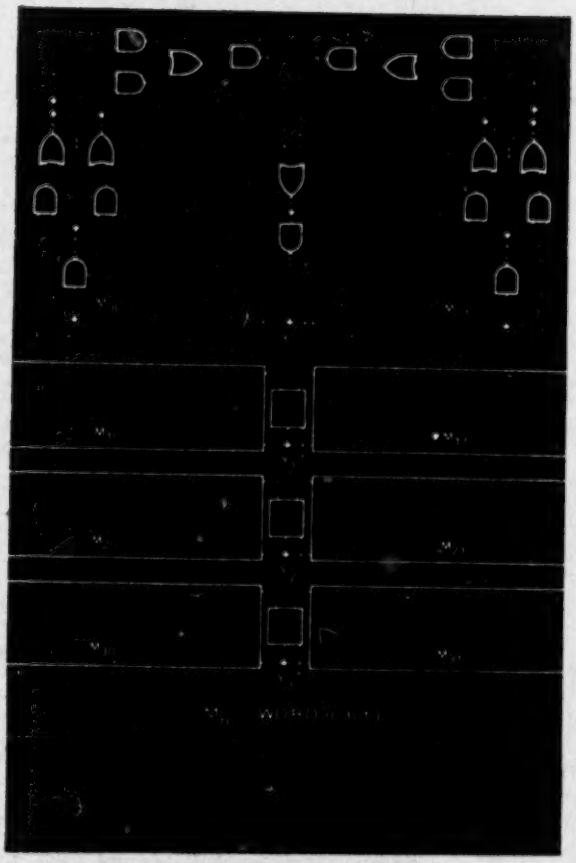
Television is a medium in which we can make.

And making, objectify ourselves.

Only recently has television been thought of as a medium independent of other media. To such an extent as it has been thought of this way previously, the histories of theater, journalism, motion pictures, and radio have been essentially influential.

And until only recently, the history of other arts has had little credence or relevance.

Now, it is possible to think in other ways.



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Television seems to have begun with a live broadcast.

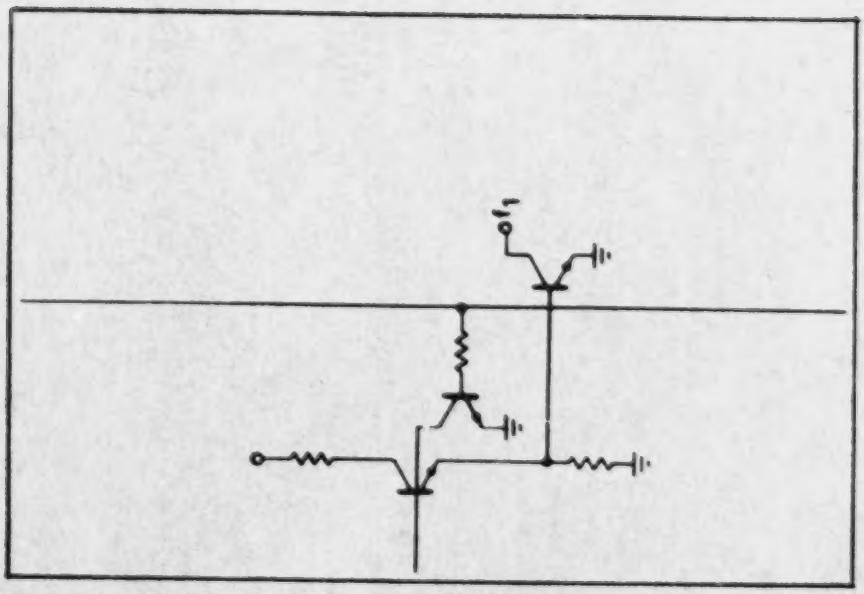
And from that moment to this much speculation about it concerns its live nature.

Its uniqueness appears always to have been its "liveness."

To our present moment, we seem to regard the live broadcast as television's most indigenous characteristic.

It may be so in form, as well.

And with this possibility in mind we may turn to our future. And wonder how it may be employed to our most humans ends.



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No one can count the number of times it has been said that television is the new technology with the greatest impact. It certainly can't be very clear to us what is meant by that. Were we clear, television would not be the thing it is. We do all seem to have the impression that it has deeply affected our lives. Games have changed. Politics have changed. Journalism has changed. Education has changed.

Despite its proliferation, it's doubtful we have much serious sense of it. Who cares about how many households? Who cares about how many advertising dollars are spent? Who cares about soaps and toothpastes and automobiles and deodorants and pharmaceuticals to ease the pain? Who cares? Who seriously cares about television?

Anymore than who cares about the millions of dollars spent a year on cigarettes and alcohol. Or, on insurance. Yet, it's all here. And the cultural warp and woof has television's thread weaved into it. And that's the way it is.

But it's doubtful many of us have a very serious sense of it. It's doubtful many of us pay much attention.

Do we pay attention to paint? To sound? To the movement of human bodies along the streets? Do we see the sculptured lumps of our cities? Do we see the trees, the air creatures, the salmon struggling up the streams to the spawning pools? How seriously do we hear and see and touch the substances and essences, the qualities of our

lives? Who knows?

Does television?

Of course not. Television is nothing but a technology; more than anything, a massive distribution system. It doesn't see or hear anything at all. It's a giant means that some of us use apparently to further only God knows what ends. Television isn't serious. Anymore than an airplane is serious. But, if we place an incendiary bomb in an airplane, and shoot it toward some humans working in their fields, it's serious. Are we serious if we load it full of bananas and send it to Biafra? Or with pink-faced jollies, and send it to the ski slopes of Switzerland? Who pays attention in either of these instances?

It's the old argument about use, isn't it?

Light, sound, and organic substance are all here, aren't they? And we come and go from work each day, passing light, sound and organic substance by.

Someone among us has been looking and listening. He's been there all the time of our lives. He's been playing with forms composed of history and his own insights. He's been playing seriously. He's been paying attention. In other forms he is called an artist.

You see, people who devote their energies principally to television -- those who earn their living in this environment -- are hounded by product and time. Most of us who earn our living accept this as part of our daily bread. It can be said the artist does too,

perhaps. But in quite a different way. Though it may give him intense pain, he can chuck it. That is to say, when he confronts the emerging made object, he has disciplined himself to accept the fact that if it does not satisfy him, he will not accept it.

A curious principle that seems to pervade the television system has it quite the contrary, however. If there's a time slot up ahead there -- it is accepted traditionally that it has to be filled with something. So -- it's very difficult for the television maker to dump what he's making if it is not acceptable to him. Oh, indeed, he may do it from time to time, but he will not last long in the system if he does. There are many reasons for this. And we will try to deal with some of them.

Principally, the reasons are all linked to one very basic and relentless one: television's distribution characteristic.

If one's means is irrevocably linked to distribution, one's means must be productive. There can be no unpublished periodicals. And in television there can be no dead air, no blank space in time.

Such an occurrence is regarded as catastrophic.

Though an artist may feel deeply and bitterly what he wants to make and can't, he always retains to himself the obligation and the right to reject his own work. He is not a periodical that must be published. He is not a time slot that must be filled. His means and its distribution are not by convention linked.

No suggestion is being made that the medium and the broadcast

are only and necessarily separable. The television broadcasting system is what it is. And there are a lot of good reasons for it. But, it is something else. The medium is a making-means separable from its technical capacity to distribute -- to broadcast. And there are many who work these vineyards who are unaware of this fact. Being unaware, they rarely encounter the medium, so intense is their concern for the broadcast.

How many times in the past ten years the term "cultural revolution" has been used! Whatever is meant by that? Is it a revolution? Or, is it evolution?

It's all happening.

All around us, the currents rush and flow towards centers of attention. And somewhere in the midst of all is electricity, speed, and television. Electric circuitry makes us feel sometimes as though we're all a giant nervous system being touched and stimulated by each other's memories, by each other's probes toward meaning. We're in each other's heads. And we can't get out. And we can't let go. And we're on this incredible and holy planet-boat that tosses and spins in the heavens. We're together whether we like it or not.

So -- many of us are searching for ways to make the joining more meaningful. And Einstein has insisted his equations upon us.

We must be relative.

And we must be relevant as well.

So -- we search. And one of the glorious mysteries that impels

us is the one that gets somehow hatched in the nervous systems of those who call themselves artists; or, rather, who let others call them that. And their search is for expression. They want to express themselves. And if they are the best of us, the rest are very fortunate indeed. For, the artist's expression somehow helps to join us.

A medium is available. A very sophisticated, complex technology which human beings invented is available to us. It is dumb, inarticulate, contains no magic. It is available and manageable and probably stunningly beautiful when managed by graceful people who are bent upon the acts of expression.

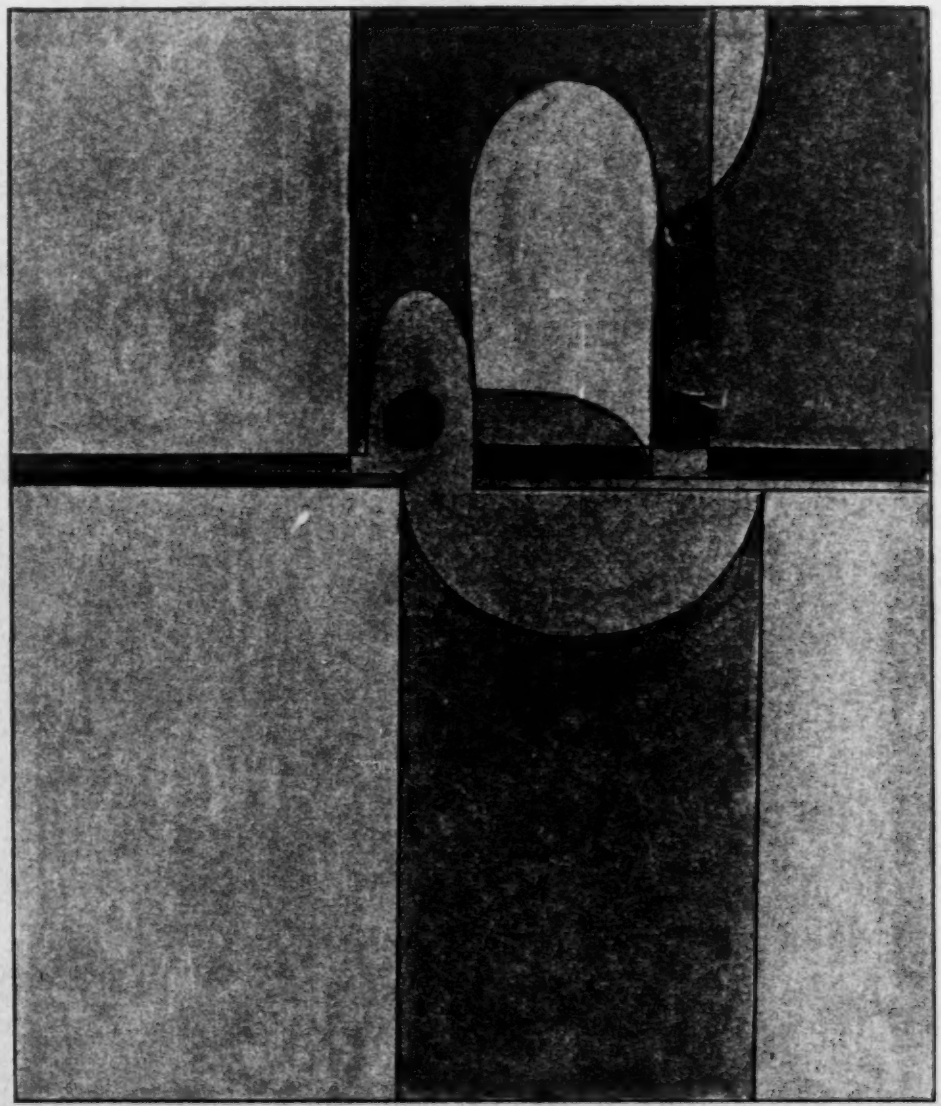
This newer medium is swift in nature. It demands a new kind of perception. It moves like light sparked into life as through a nervous prism. It is another paint, another dance, another music of sound. Another message-means to catch the quick vision of the inner eye.

It is a medium that's available for expression other than game shows, public events, journalistic word packing, theatrical scar tissue, western movies, old movies, ladies sewing circles, baby sitters, football, baseball, basketball, boxing, super salesmen and savant.

It is a new medium that may employ electrons as material for the greater good of men.

And, hopefully, what follows is about that. About this. About being human.

Experience is not <u>given</u> or received; it <u>occurs</u>.



1

A wood sculptor approaches a piece of wood. That is, he actually approaches it. He has skills he brings with him. And experience by which these skills and other pieces of wood have combined. Despite years of experience and skill, however, each approach is singular.

As he moves his palm and his fingers along the surface, he does not "know" what is in the wood. He senses what is there. But he does not know what the wood will tell him until he enters it.

He may draw sketches as he acquaints himself with possibility and probability. He may, unconsciously, select his tools. But he does not know. He feels that engagement -- and a considerable amount of trust -- will guide his eye and his hand in relationship

to the grain, the texture, and the shape which will ultimately emerge.

This is the way a wood sculptor and his wood are met.

What comes of this relationship is what makes the man the artist and his work an art.

Despite the unique complexity of this union there are some aspects of it that are readily apparent.

One is that the sculptor has some tools he understands how to use to further the vision in his mind's eye. The vision he cares for.

Another is that he is prepared to go to considerable lengths to acquaint himself with the material out of which the vision will be objectified. He understands the character and property of wood.

Still another is that he doesn't know how long it will take to make his piece. Nor, except for the exterior limits of the wood's shape, does he know its size.

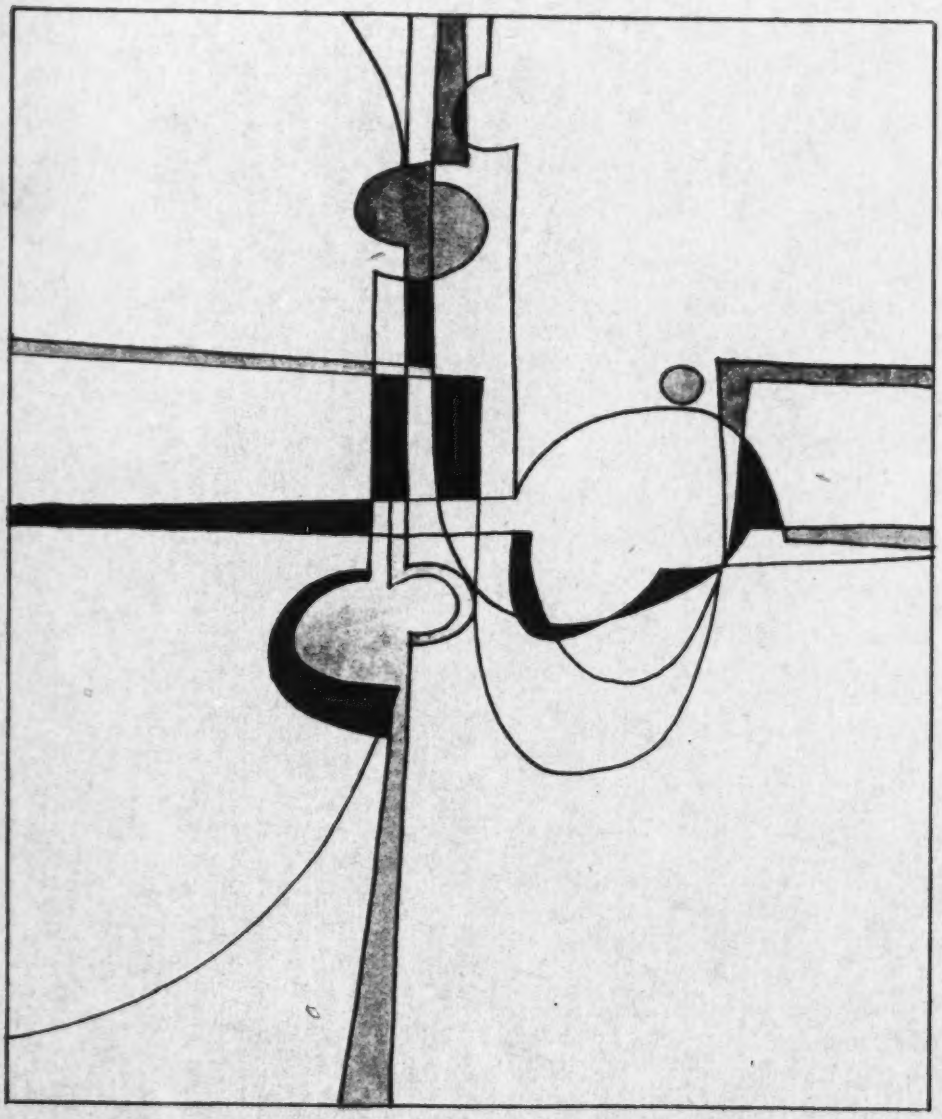
At some moment, when it feels right for him to do so, he takes a chisel in one hand and a mallet in the other. And he commences the play of his work.

Because he is what he is, a form will contain what he does. His piece of wood, no matter how he arranges its shape, will not be mistaken for a piece of music, more than likely. Nor will someone think it a painting. Some may figuratively call it a poem or a dance. But as we have some history of recognition, it will be neither a poem nor a dance.

Well, what will it be, then? It will be a piece of wood, of course. And one into which a man will have put himself. If it moves and touches us, we will sense that his and its nature have merged. A creative process merged them. And we are likely, also, to call him an artist. Artist is the name we have tended to use over the centuries to identify him. And art is what we have called his creation. It is a perfectly reasonable means of classifying experience.

So it's art.

Television is generally classed by social critics as an expression of popular culture. And so it no doubt is. Whether or not it need be is another matter. For those of us who wish to reflect on this possibility, what follows may be relevant to not only where we are today in the time in which we live -- but to how we will experience one another as we continue our speedy evolution among the neuron-like paths of electronic circuitry.



2

The material of the medium is an electron. Its mass is 1/1835th the mass of a hydrogen atom. Though it moves so swiftly it cannot be perceived by the eyes of man, it is finite. Its effects can be studied upon the surface graphs of oscilloscopes. And these effects are seen as sine curves and wave forms.

Synchronization, amplitude, amplification and modulation are what electronic circuitry is mainly about. It's also about storage and delay.

But mostly, it's all about time.

In principle, the technology is rather simple. In practice and maintenance, it's quite sophisticated.

The important fact to keep foremost in one's mind is that the

movement of these electrons in this medium is measurable. It is finite.

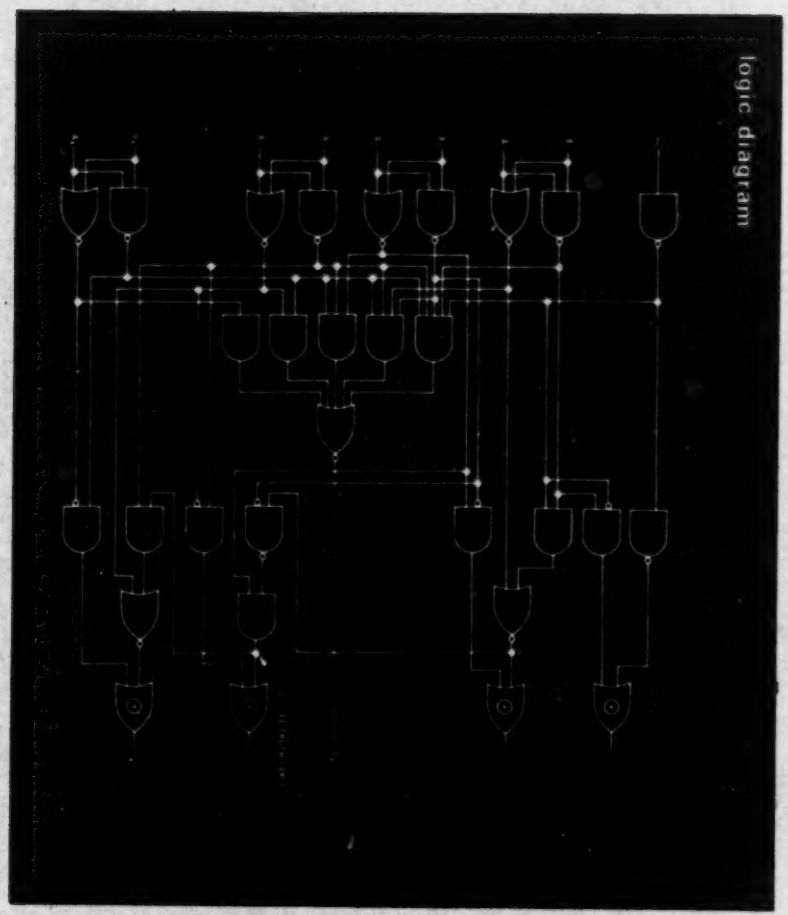
Such a point is being made of this, because so many of us have developed a near mythic feeling that all this discovery of electronic management is getting away from us. We're all happening so swiftly. We don't seem to have time to stop and think, as some say. And we are becoming alienated, others say. And some feel, strangely, that the electron's revolution may have doomed us all.

Well, let us not forget. We invented it. We must have had something in mind.

We invented it. We <u>have</u> something in mind.

Electrons, so far as artists are concerned, are nothing more than a new material. They move in finite ways. And there is nothing inherent in this material which is alienating.

There is no material an artist uses today that is not available to others for other uses. What makes his use of the material different from others' uses is his attitude toward it.



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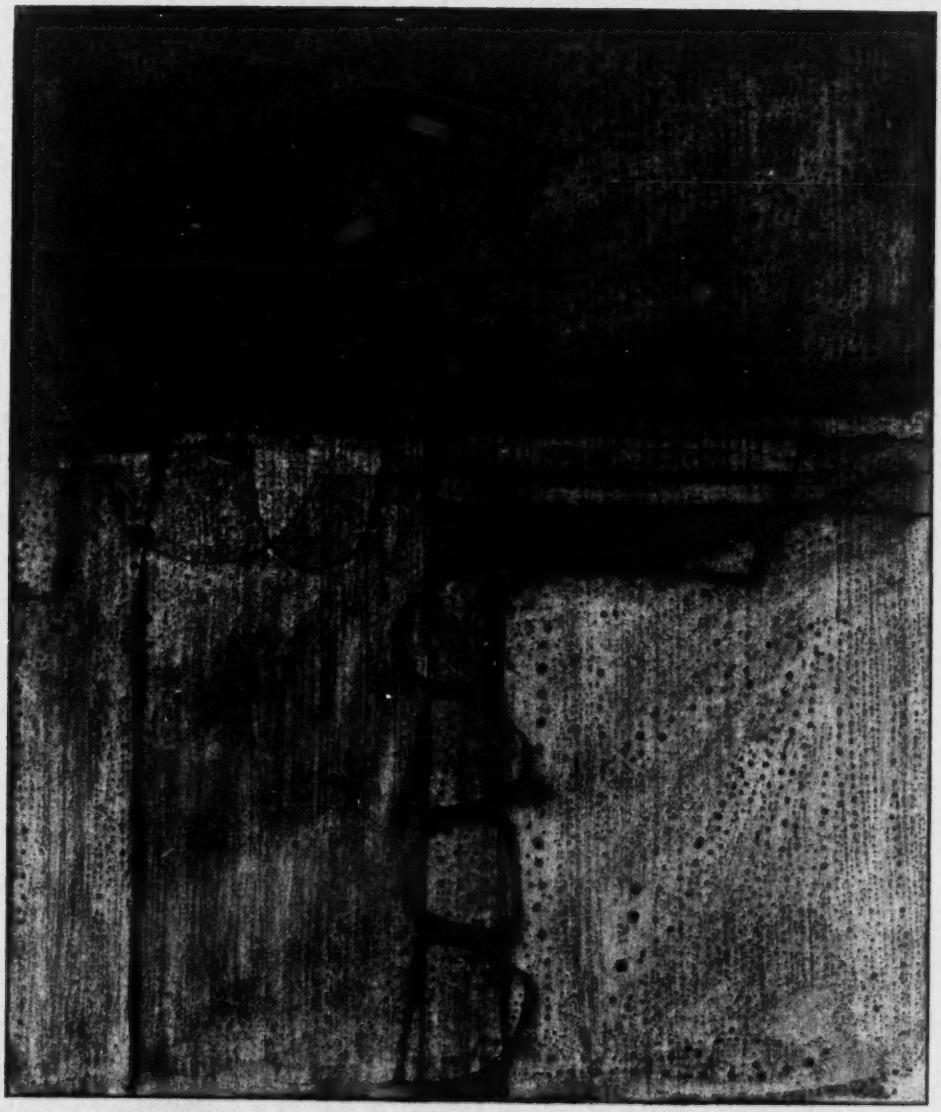


3

Imagination is a marvelous means of modifying one set of notions with another set conceived in abstraction, and doing so quite out of real time, making it possible, therefore, to experience a non-existent form in a formal way. Thus, an idea or concept can be given shape and can be tested by trial and error. We need not suffer the consequences should the imaginative conformation be flawed. Or, on the other hand, we may carry over the feeling which transpired there into our productive efforts.

We can imagine anything we feel like.

Let us use our pre-formal tool to establish a context for speculation.

In this neutral and wholly imaginative moment we may explore

possibilities our utilitarian environment otherwise prohibits.

So, let us imagine an interval in the continous flow of organic life when movement of the human body was employed for purposes of a strictly utilitarian nature.

Such an interval has never existed, of course. We are only imagining it.

Furthermore, we shall restrict the area of attention to that aspect of movement which we shall term "carrying." In our imaginative moment, movement of the human body, then is directed only to the transporting of objects from one place to another. And the application is common to all of us.

Now, given this, let us try to imagine confronting ourselves with the possibility of movement separated from this activity of transport. We do not know what this "other" is. We do conceive that it is something other than carrying.

Were we engaged in such confrontation, it would be very difficult for some of us to have a conception of what the others were directing our attention to. And none of us would know that what we were searching to discover was dance.

Dance, as form, would be non-existent. What would exist would be the knowledge of human movement as carrying.

Having no definition, no history, no experience of dance we would not know that dance is what we are thinking about. But those of us who were willing to might divorce ourselves from our "carrying"

definition, history, and experience -- and attempt to reach out for the new form.

To those who were unwilling to accept any other possibility, our non-object-carrying activity would seem foolish and even futile. Our cavorting antics might even be thought dangerously discordant with accepted practice and convention.

To those who were intent on exploration, it would appear and feel quite different.

In doing so, they would no doubt ultimately come to the medium, the human body -- and its capacity for movement.

To the others, movement without carrying would seem irrelevant and, perhaps, even impossible.

To the medium people it might seem at times impossible, but not irrelevant; for, they would be engaged in trying to understand the medium -- sensing, but not knowing that dance was as relevant as carrying.

The two groups (if they could be so clearly defined) would no doubt experience conflict. One aspect of the conflict, and a central one can be described as follows: the medium-conscious people would be concerned with dance (not yet discovered). The carrying-conscious people would be concerned with carrying (a clear and practical history known). Certain principles "discovered" by the medium-conscious people would derive from the history of the other. And would, therefore, seem redundant. For instance, the medium-conscious

explorers might come upon composition. In pointing this out to the others they might get a response which would state that composition was an inherent part of carrying. And, of course, the respondents would be accurate. They would find it difficult to accept that what the medium-conscious people were "discovering" about composed movement concerned the nature of movement, not the nature of carrying.

If the medium is thought of as carrying, it is difficult to think of it as movement. It is especially difficult when there is a history of carrying and very little, if any, history of movement. It is even a more complex issue if there is a definition of carrying and no definition of dance.

Also, as designed dance movement takes place within emerging principles of composition, the carrying-conscious people can justly point out that the designed dance is not unlike the carrying, save in one essential respect: it is not carrying anything.

The medium-conscious people can respond, on the other hand, that the medium permits both carrying and dance. And that dance, itself, is something.

Though, for some, the conflict will never cease, for others it may lessen, as definition and history of dance develops.

Meanwhile, in our imaginative interval, the medium exists.

So -- having imagined this moment, let us return now to the work at hand.

The definition, the history, and the experience of television is very much with us today. And though the phenomenon is rather brief in any historical perspective, it is active and viable.

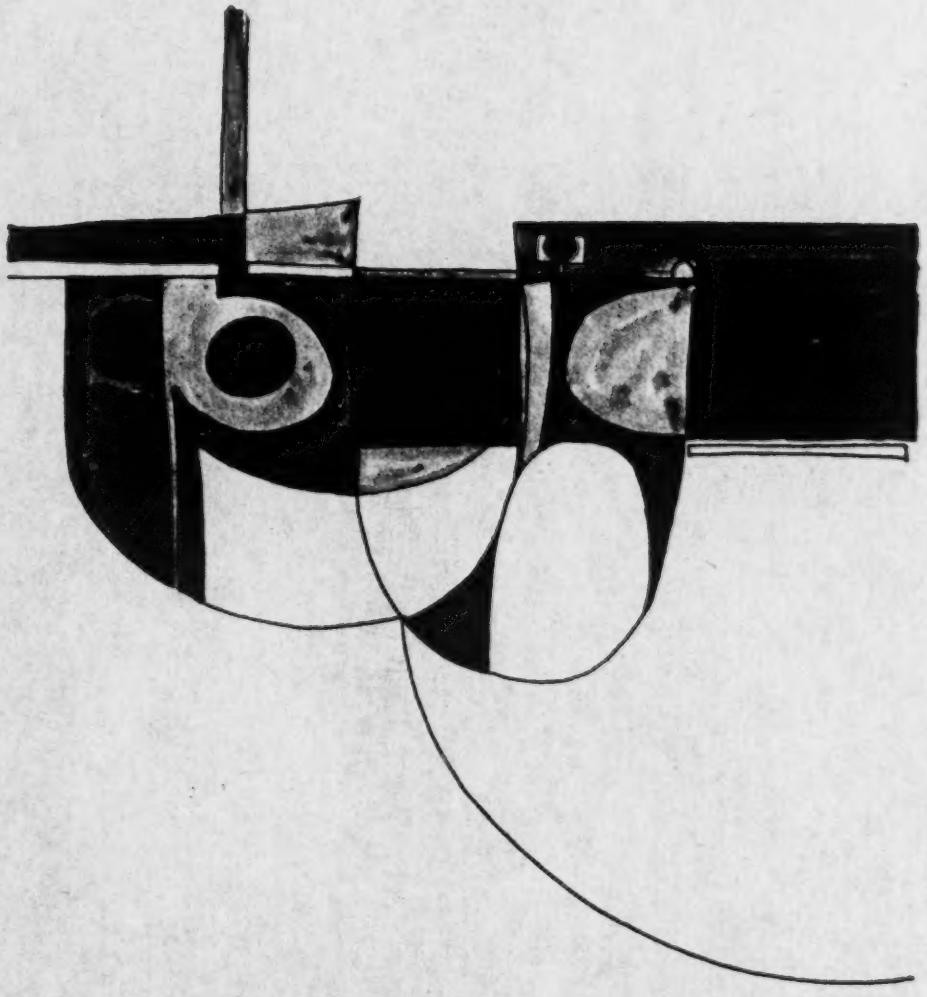
Recent activity has begun that may ultimately create conflicts of somewhat the same character as those described in our imagined interval. Speculation about the television medium has begun which is separate from that speculation of a socio-psychological nature which has grown with television's brief history.

Some people are beginning to explore the medium of television apart from its carrying aspects.

Those of us who are, are ourselves isolated from one another. In many parts of the world where electronic technology is sufficiently developed, people are exploring the medium of television separate from its generally accepted broadcast function.

Though much of the search is taking place in the more or less unsophisticated studios of single artists and engineers, foundations and industry are commencing to generate activity of a different sort, as well. And one can anticipate its acceleration in the future.

The medium exists. And there are those who feel its performance has been, for the most part, much narrower than its theoretical capacities would indicate.



4

Television can be described as an invention for the transmission of moving photographs from one point to another without dependence upon wired connections.

Television is more than pictures only, however. It is also the transmission of sound. Since radio came first, that technology had already been mastered.

Transmission seemed most efficient if radio waves could be used as carriers.

So, a means had to be devised so that picture (visual) information could be converted to the radio carrier. Picture information, on the other hand, is a matter of light waves being reflected off objects, through camera lenses, to sensitized film where the molecules

can remain more or less fixed to be converted chemically to projectable images. How, then, to project a picture onto a radio carrier frequency was the problem to be faced.

Numerous attempts were made. But, ultimately, the principles now employed in electric cameras came to stabilization in a design based upon conversion.

This conversion technique had been developed in radio. Though complex in design and maintenance, the principle can be readily grasped. For radio, it was discovered that sound waves entering the apparatus of a transducer could be converted to electricity. A microphone is a transducer. The sound, now contained in electronic flow, could move along circuits to the desired end of transmission.

Since the invention of motion pictures had preceded that of television, it was reasonable for those who sought mastery of the newer technology to think in terms of motion picture cameras. They did. And in doing so it was determined that a camera could be designed as a transducer just as a microphone had been before it. Whereas microphones convert sound waves into electricity, now cameras must convert light waves to electricity. And so the design was stabilized, so to speak, in the electric camera we know today.

With the two technologies more or less compatible it became possible to contain the flow of electrons in each, and to move them to a transmitter at which point the transfer to radio carrier frequencies could occur.

Now, broadcast became possible.

The television receiving monitor, to which the signals are broadcast, is capable of reconverting these signals back to the original, electrical sound and sight images which, in turn, had first been converted from sound and light waves moving through the atmosphere toward the microphones and the camera lenses.

Oversimplified as some may feel this description to be, essentially it represents the technological system which sustains the phenomenon of television.

At this point in our analysis we can say that two distinct histories are joined in television: the history of sound recording and that of motion pictures.

Despite the fact that two separate transmitters (one for sound and one for sight) convert the incoming signals of television to radio waves for broadcast, television can be thought of as a single phenomenon.

By and large, we do not think of television as separate sight and sound.

So, let us amend our first statement, thusly: television can be described as an invention for the transmission of moving photographs and amplified sound from one point to another without dependence upon wired connections.

This is where it started in the minds of those concerned with broadcast technology.

This was its initial impulse.

Two other developments have occurred, however, to embellish the original. One has to do with retention, or recording. The other has to do with extending the circuits to such lengths that pickup points and receiving points are directly connected. No transmission through the air waves is required.

Neither of these embellishments has greatly affected the initial impulse and the technology which derived therefrom.

The system of distribution has been affected. But the technology, very little.

These are important distinctions to keep in mind. For, if we are to understand the television medium we must have a clear sense of its original intent. We are very much affected by that. Transmitting electrons with or without broadcast is distribution.

Television technology was designed primarily for distribution. It is also a medium independent of this capability. But because distribution is inherent in its design, in practice we have tended to be shaped by this capacity. We tend to pick up sight and sound images and transfer them from one point to another.

No suggestion is intended here that this is not a reasonable and worthy effort. Rather that television convention and practice has been organized primarily around principles of distribution -- a medium for the distribution of moving photographs and amplified sound. Only recently have others begun to think of it as medium

alone.

And for those who have, it is with respect to conversion that their imaginations have been stirred.

When one acquaints himself with, or attempts to analyze a medium, he searches for its exclusive and unique characteristics. He tries to understand its nature independent of other media.

In trying to understand the histories of human expression, a student studies each, separate and distinct from one another. In doing so, he may discover much overlapping of technique and form. But his concentration is on certain unique properties and qualities each medium appears to have.

Though we may use figurative language in describing painting as poetry, we know one is not the other. Though creative impulses may seem alike, only the unclear mistake composed sound for composed mass. Music is not mistaken for architecture. Dance is not writing. And though sculpture may look like dance, the rhythmic interval in passing time has been removed from one. In formal terms, they are independent of one another.

The television medium suggests formalities unique unto itself. The matter of this form is not molecular, for instance. It is electronic. The matter of the television medium is the electron. Electrons are particles and waves which comprise the flow of electricity. Their movement is finite and can be measured. Within limits defined by the human nervous system, their finite composition and movement

can be predicted. We can express ourselves with the material of electrons. We can conceive design and execute form.

In converting light and sound waves to electricity, we discover another material with which conscious mind can give expression.

For those who spend their professional time in television, this shift is subtle and often difficult. For some, it will seem almost impossible.

For, convention and practice persist. Our daily efforts tend to innure us to other possibilities. Our histories tend to fix us in certain contexts. We cannot see our forest for their trees.

So great is the influence of the motion picture camera and of sound recording (radio included), some of us are unable to experience the new material, electrons, in visual motion.

So great is the influence of systems designed to support distribution psychology and economics that some of us fail to realize we spend our days in planning for, and making possible, the picking up of moving photographs and amplified sound one place in order that we may move them to another.

What happens in the mosaic of the camera fails to interest us. The remarkable richness of mixing electrons eludes us. The surface of the monitor is hardly more than a reflectance screen as in a movie theater. Some of us are not even aware that it, itself, is in motion. So great is our concern for transmitting the photographs and the sound to somewhere, we often fail to think about where the somewhere

is; that it is not a theater, but, rather, someone's private place where he lives and enjoys such intimate contact with himself and those around him as he is capable.

So great is our consciousness of distribution that many of us think of videotape simply as a means of delaying broadcast, or as a means of retaining property for future sale and ultimate distribution. We cannot envision videotape as memory bank, as tool for multiple pass recording, as another camera.

So many of us in television simply are unaware of the bright mosaic and the swift flow of electronic material passing before our senses. And that the medium itself is other than natural photograph and natural sound.

We are gripped by the history of the theater and of motion pictures and sound recording, and the distribution of these splendid media by way of television.

But, of the television medium itself? What is that?

Central to the activity of television is the principle of picking up a photograph at one place and transmitting it to another with a minimum loss of fidelity, given the system's standards.

When we reflect upon this, much that is exciting and relevant about the medium is better understood. Much that is pedestrian and dreary is understood, also.

The television broadcasting system has evolved from this basic notion. Economics, law, production and program planning, audience-

as-target thinking, advertising power, cultural proliferation, technology, and such aesthetic judgements as those which predominate -- all have to do centrally (and unconsciously for many) with the transfer of photographed experience from one point to another.

Until we confront this reality, those of us who pass so many hours either sending or receiving the moving photographs will care very little whether the cameras are electronic or not.

When we do realize the immensity of this proposition, however, we may all begin to make ready for a new and inviting possibility.

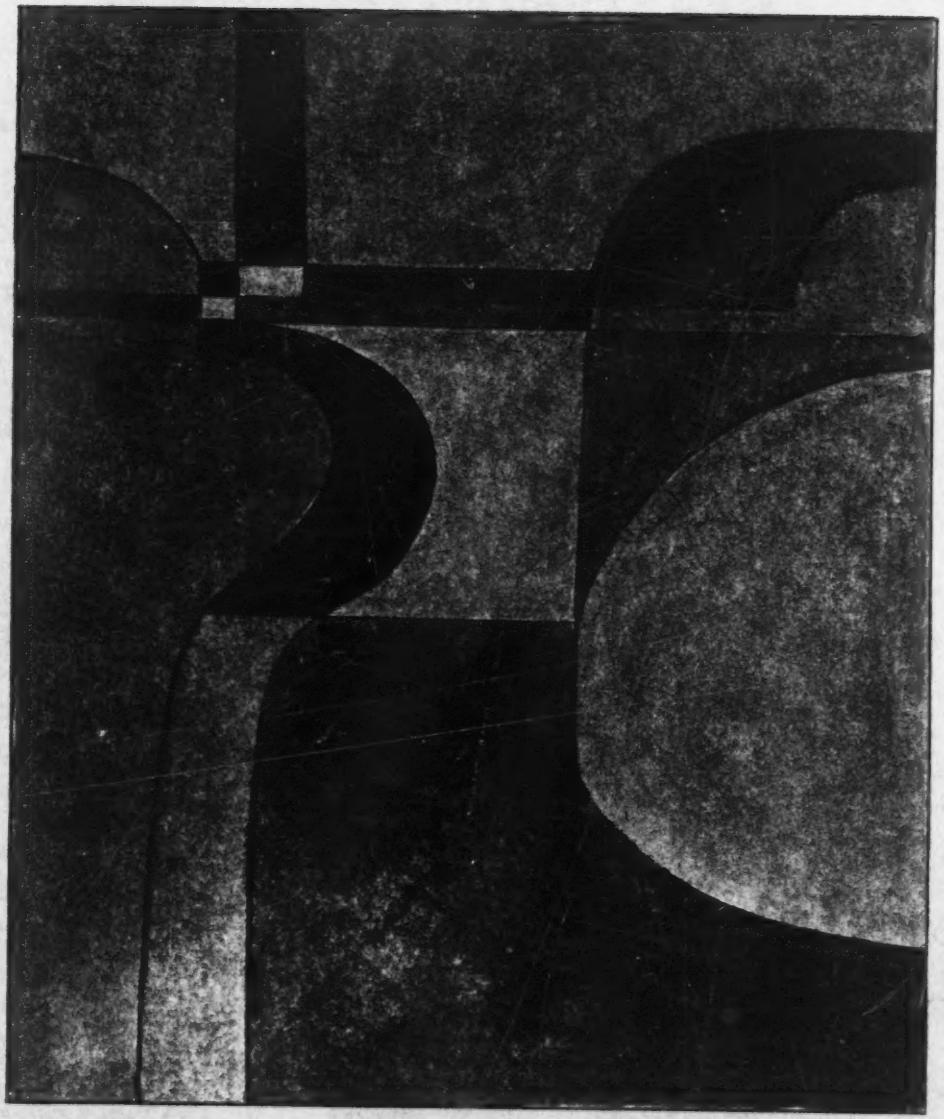
Process can be described as the movement of the unformed toward form.

Process is one thing.

But to experience process is another.

If any medium is capable of this mastery, the television medium seems uniquely qualified; only if we get out of theater space, however, and into videospace.

The attitude of picking up and putting on will not serve us. We must learn to manipulate the materials of the medium, the flow of electrons. We must go with process. And we must infuse this process with our own instantaneous awareness, our own experiencing.



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There never has been a distribution system of so profound a character as television.

The technology of electrons has made it possible.

But in order to appreciate this character one must not only consider distribution as such. One must also appreciate the immense gift of motion pictures which has been given television.

It is, on the one hand, a vast distribution system more far reaching than literature, be it novel, poetry, play or newspaper. But it is also motion pictures.

Let us look at television in these lights.

And as we are doing so, let's remember that the spectator/participant is situated in his private environment. He did not have

to go anywhere else for his experience; neither to the bookseller, the magazine or newspaper seller, nor to the theater or movie house.

It has been delivered to him right in his home where most of his intense and intimate life occurs.

There is every reason to predict that this proliferation of electronic technology will continue. The time may not be far distant when many of the services which now feed material and information into the home will be doing so by electronic means. We will order our groceries and household supplies, receive the delivery of facsimile printed materials, entertain ourselves privately -- singly or in group interconnections -- all by electronic means.

Certain aspects of our education will be augmented by electronic means. Informational means will continue to multiply. We are being brought into touch with one another throughout the wide scope of the planet by electric circuitry.

This incredible distribution system appears to be here to stay.

What shall we distribute? Will it be strictly utilitarian and informational? Certainly not. The history of radio and television reminds us otherwise.

We will be entertaining one another. We will be sharing one another's values, our various points of view, our tastes, our cultural uniqueness; our spiritual wealth. We will have the opportunity for contacting one another.

What shall we distribute? What shapes and forms will our

human expression take?

Again, we must remind ourselves of the history of the medium in the last twenty years. And where we have come with this history.

No distribution system in the history of human civilization has ever moved ideas and impressions so swiftly, so far and wide.

Already -- and it is still primitive -- it seems to exceed, or, at least, threaten our capacity to cope with it.

Yet, how magnificent this interconnection principle is! How intense its potential!

We are thinking about distribution, mind you. What shall we distribute? What have we distributed?

Has the experience been valuable?

Was Queen Elizabeth's coronation a service? Do you recall the early days of NBC's Wide Wide World? Did these serve? How about CBS' Ed Murrow, and his probes into the social fabric with Fred Friendly; did these experiences bring us understanding? Did NBC's White Papers? Or ABC's The Saga of Western Man? Or, NET's History of the Negro People or Arts: USA? Were these valuable to us?

Or, Presidents Eisenhower's and Kennedy's foreign journeys? And, Presidents Johnson's and Nixon's.

Have we been increased by being spectators in the development of NASA's space program?

Has our educational system been improved? Are our youngsters receiving a wider, broader feel of the planet and its people through

information distributed to them via television?

Do the news programs of all four networks and the hundreds of local stations bring us the news? Do we see more, hear more, know more because of them?

Do we understand more clearly what it is to be human?

And, of the arts; what have we distributed?

How many people saw Hallmark's The Taming of the Shrew? Did it serve because so many were receiving the signals and images of that production? Or the Metropolitan Opera in performance? Or the Sadlers Wells Ballet? Or, Ballanchine at work and play? How about the symphonies, the dramas, the painting and sculpture exhibitions, the poetry readings, the festivals of films? Were these worth our while, worth our efforts to see and hear, worth our attention?

All these have been distributed to more people, in more places, in less time than any of us might have imagined possible twenty-five years ago.

And all that has not been mentioned here, all that has been left out! We have much to value and much to question.

But, whatever our posture, our attitude toward this gigantic system, it is here amongst us. And no doubt here to stay.

What shall we distribute?

Concentrating on this subject, one can sometimes feel as if he's reflecting on the very nature of the human being.

One might look at the marvelous complexity of any single human

organism, any single human nervous system: and ask the same questions of any individuals that are being asked in the context of this query regarding television.

There he is -- marvelous beyond words. What will he distribute?

Though the forms of theater, journalism, motion pictures and radio feed the history of television, perhaps none can be regarded as so great a gift as that of motion pictures.

Though those who manage television owe much to the filmmaker, he has been something of a burden, as well.

Students of television often have great difficulty in keeping to the point of their study when analyzing the medium. It is because of these rich forms that they are often confounded. And these, coupled to the capacities of the medium for broadcast, can often lead us into complex and confusing issues.

All television program experience can be classed in a number of ways. For instance, one can identify two classes to begin with: the live and the pre-recorded event. These two can then be classed, further, as the studio or the non-studio event. Now, one can combine these classes, and in each ensuing combination be introduced to converging forms of any, or each, of the four previously identified.

And always one's speculations are subject to the influence of other speculations concerning distribution.

Television is a complex matter. Too few of us have taken the

time to thoroughly acquaint ourselves with its myraid characteristics.

In any of the illustrations alluded to above -- from the Queen's coronation to the classroom -- an understanding of the influence of these forms on these classes is essential if one is to fairly comprehend the subject.

And unless we are willing to proceed very carefully, we will continue to add to the disorder which many of us feel.

Of one thing we must be very clear, none of this experience we call television can escape the motion picture form -- be it live or pre-recorded, studio or non-studio contained.

The system was invented to transport moving photographs.

And by and large, together with synchronized sound, that is precisely what it is doing.

That is to say, it is not doing anything. Those who manage television are moving photographs and sounds -- from one place to another.

And as we have attested, this is a vigorous, remarkable accomplishment. Albeit there are many who will argue its worth.

But as we make ourselves aware of this, let us be certain we are clear about one other matter. As dependent as the system is upon the history of motion pictures, there is something the system added to the camera: that is its capacity for instantaneous manifestation of the light waves reflected off the object. The electric camera reveals the images passing through its lenses instantly. One

need not wait for processing.

We look through our viewfinders and we see what we see in objectified, removed form, then and there.

That is something quite special.

And it is that uniqueness which is television's alone.

Now, as students of television, how do we deal with that?

If we are not dealing with that, we are not dealing with television. By and large, we are dealing with the art of motion pictures. And with their distribution.

And such a wealth of art that is!

There is hardly a single fact of this aspect of the system which does not derive from these arts.

The lenses of the television camera are similar to those of the film camera. The qualities of illumination of the objects to be photographed are essentially the same.

The switcher/mixer bank in the control center is hardly more than an instant editing device. The effects it makes possible are similar to those optical effects that are planned at film's cutting bench and processed in film's laboratories.

Indeed, the very language is similar.

The one essential and awesome difference is <u>the making process</u>.

The technology of the television medium makes it possible for subject, maker, and object to be present together in the same time continuum.

That is television's unique nature.

That is why we who are exploring new ways in the medium have found the making process so central.

And, at the same time, so difficult to understand. For, the maker and his object are difficult to distinguish in the making process. Just as we humans studying ourselves are hampered by our subjectivity.

For many of us who make our life's play our work in television, we are unsatisfied. We often feel something of human nature has been removed; or perhaps, was never permitted to seriously enter the management of the medium.

Yet, we feel the medium is uniquely close to human nature.

Naturally we are moved by the power of the medium to distribute moving photographs. And we are very much involved in the making of these photographs. But, somehow we feel there is something more than moving photographs, and that making in this medium, therefore, is also something else.

We who are restless do not want to diminish television's technical capabilities. We want to increase the medium.

And in the conversion of light and sound waves to electricity, we feel we have discovered, not only a new material in the electron flow, but a new way to express ourselves.

What shall we distribute, if not human expression? The lack of a unique form in television may be hampering this expression.

Not a comment upon it, or its reflection through another form. But it itself. Expression.

Could this be the weak strand in the unfolding skein of television's experience many of us feel? Could this be the imbalance we sense, the out-of-handedness many think of when they think of television?

Why do so many feel that television is getting away from us? Could it be that our human expression has been limited by our overindulgence in the technique of distributing moving photographs and synchronized sound?

And why do so many of us who have been part of its history these past twenty years feel nostalgic about "the old days of live" television? Is it merely sentiment? Is it merely nostalgia and romantic blurring of the edge of memory?

Many who have mastered television's version of the art of motion pictures do not feel this way.

But of the others -- is it the medium's unique process, the making process, the "live" experience that we miss? Is it subject, maker, and object present together in the same time continuum we miss?

Indeed, in those early days we were so delighted with the electric camera and synchronized sound that we were not thinking of the medium as we are doing now, but we were very much a part of process, of the movement of the unformed toward form. Most events were live, whether studio or non-studio contained.

Kinescope recording was primarily used as an instrument to accommodate to national time zones. It was primarily a means of delaying a broadcast from East to West. And videotape had not yet been invented, of course.

No, it was a live experience, all right. Even the commercials were live.

Now, as we become more and more sophisticated with respect to the mastery of motion picture techniques, we become more and more interested in the perfectability of the object. We become more editing conscious in motion picture terms.

As our capacity to distribute became more sophisticated the richness of our subject matter increased. And as these developed, so did our capacities to employ techniques learned from motion pictures.

We began to <u>simulate</u> the live experience, rather than <u>be</u> it.

It's quite understandable. Motion picture technology linked to television's distribution technology brings greater risks and higher stakes in a profit-oriented system. And motion picture history is rich in wonder and accomplishment. And many gifted people are masters of this art.

Perfectability of the object, given a greater variety of subject matter, must reasonably follow the more central technology. This being motion picture technology, we began to edit, to pre-plan more. And in doing so, we moved farther and farther away from the

subject, maker, object continuum. It then followed that we moved farther from medium potential and closer to distribution potential in television.

Meanwhile, as the distribution potential increased (more people available to receive the material) with the advent of videotape recording, editing capacities increased still further.

Whereas kinescope had been used primarily as a means of delaying broadcast, videotape could be used this way also, but with higher signal fidelity. And with increased proliferation through advanced distribution technology, videotape heightened interest in property.

Videotape became not only a production device, a means of perfecting the object through start and stop editing, it became a means of retention with a relatively high capacity for fidelity, given the technology of television.

And the objects of television became properties to be sold and resold again and again.

Given the history of motion pictures as a beginning, and the camera with synchronized sound as the essential tools, with videotape as a property retainer, film and television seemed to come together.

And though the meaning of process is in both, one is unlike the other in one basic respect: the television system added to the camera the capacity for instantaneous manifestation of the light waves reflected off the object photographed.

This is what makes making in television different from making in film.

The movement of the unformed toward form with subject, maker and object present in the same time continuum is what many of us miss from "the old days of live" television.

The filmmaker and videotape maker do not feel this way about the matter. And quite understandably so. In television, they are extending principles developed in the history of motion pictures. And in many of our grandest moments they are doing it beautifully.

They have learned how to employ motion pictures' unique techniques for simulating life-like experience in television.

But in only a limited way are they engaging themselves in television's medium.

And so unclear are most of us concerning this subtle distinction that the national networks consciously add to the inconsistency and confusion by announcing in multi-media block advertising across the nation that such and such a broadcast will be "live," while the major portion of their days are occupied with broadcasting pre-recorded experience, be it film or videotape.

Somehow, somewhere deep in our beings we seem to know that subject, maker, object, and as it is said in television, viewer -- all present in the same time continuum is a life experience rich in possibility. And closer to being human, where every day of our lives, in some way or another, we are engaged in the making process, of

moving the unformed toward form.

What shall we make? What shall we distribute?

Let us look again at the classes we were identifying. It has been suggested that we cannot understand television without appreciating the forms of theater, of journalism, of motion pictures, and of radio -- as these forms influence television.

We have briefly engaged the motion picture, and though we may differ concerning important details in their converging histories, we certainly cannot fail to appreciate together the influence of the form of motion pictures upon television.

They both appear to have begun with a camera. Whereas one deals with molecules and light, the other deals with electrons and light.

What about the others? What is their influence?

In classing television program experience, certainly the live and the pre-recorded events are all encompassing. What else can a program be if it is not at least one of these two? Well, it could be a combination. Yes, that seems to be true. It could be a combination of the two. Wait. Let's step back. There is something peculiar about that combination.

We have an event occurring before us. We have a camera and a microphone. They are synchronous. With the camera we are picking up the sight of the event and with the microphone, its sounds. Are we not recording, then? How so? Well, certainly what is occurring

on the face of the monitor and in the sound amplifier is not the event itself. It is a record of the event.

Then what is live?

Well, wait, let's not move so swiftly that we confuse ourselves. We'll return to the camera and the microphone.

They are there, present in the event. Are they <u>in</u> the event? Are they participants?

Well, yes, or no. It will depend upon whether those in the event are aware of the camera's and microphone's presence. But, again, wait. Is it the camera or the one who sees through the viewfinder of which (whom) they are aware?

If a disconnected camera and microphone were simply placed there, would those who are participants in the event be aware of these inanimate objects? Probably not. Not unless they were in the way.

So, it must be the human presence of whom they are aware.

Are the cameraman and the microphone man in the event? If the others are aware of those others present, then they are probably aware of these two people, in some way or another.

Then, these two are participating in the event.

The event seems to be a combination, at least, of itself and these two men who see and hear with these instruments.

But, then, what is live? The event to which the cameraman and the microphone man have directed their instruments is certainly

not the same one that is appearing on the face of the monitor, nor being heard through the sound amplifier. This latter is a record of the former.

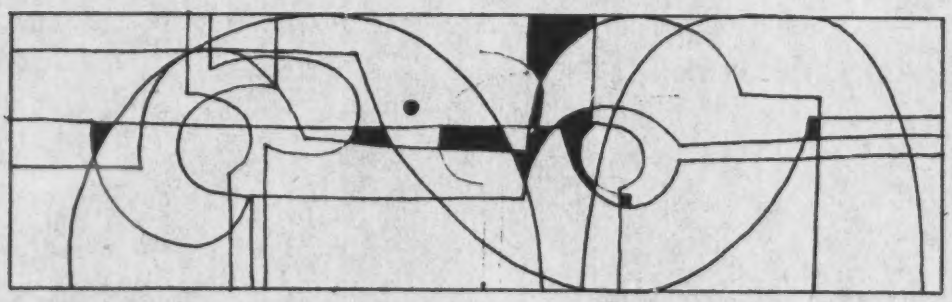
How accurate is it? That is to say, is it an accurate record?

Well, that must depend upon a number of factors, not the least of which are two men who are picking up the event so that it will be recorded on the monitor and the amplifier. But, remember, since they are there and the others are aware of them, they must be picking up not only the event itself, but their participation in it, as well.

Let us assume the technology is operating at optimum condition. The sights and the sounds are being recorded as faithfully as the technology will allow.

Now, what is accurate?

An accurate recording of the event must include the event, its participants (which include the two recordists) and an optimum technical condition.



Since the two recordists are participating in the event, as are those who comprise the event, then the record, to be accurate, would seem to have to include the participation of the recordists as well.

So, is this what is meant by live? It must be.

Then, it would seem that a live broadcast of an event must be a record which includes the participation of those who record it. Is there a difference then between the pre-recorded broadcast and the live broadcast? It would seem that the only formal difference has to do with a record which includes the participation of those who recorded it. But certainly in this sense they are participants in the pre-recorded event.

From the point of reception of him who perceives the sights and sounds on the surface of a television monitor and through the cone of an amplifier, the experience he is attending to is a record of a live event. So, why is he so intent upon the object? He knows it is a record.

He and the recordist are participating in the event in that neither of them can accurately predict its outcome.

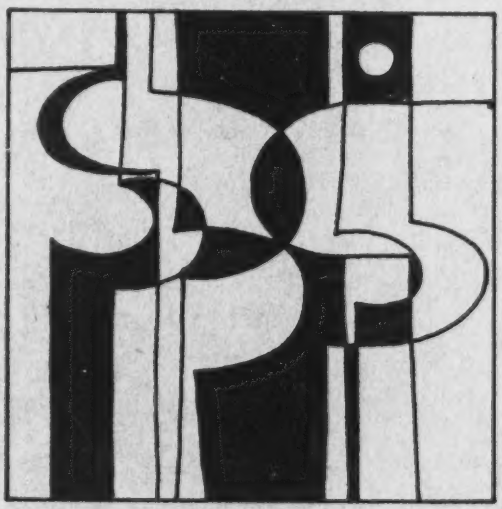
And each, though separately and possibly miles apart, are somehow sharing that uncertainty in the same time continuum.

Imagine, the dynamics of this relationship when compounded by millions, quite beyond the immensely sophisticated relations of those who constitute the recordists!

No wonder the live broadcast is so widely acclaimed, by even those who have not taken the time to study its nature. Some depth of humanness is plumbed in those moments.

So -- we started off to classify program experience as live and pre-recorded. And came to this.

All broadcast experience can be formally described as recorded experience. We seem to attach the word "live" to that experience in



which the record includes the participation of the recordists, factors of unpredictability, and the perceiver of the record plus the others <u>all existing in the same time continuum</u>.

If we could shape the "made" event to contain these qualities and characteristics, we would be functioning closely to the nature

of the television medium.

So, now the question must be: in analyzing program classes, can we describe the two all-encompassing classes as live and pre-recorded?

Of course we can. Because in one the record is simple conversion of light and sound to electricity for the purposes of distribution. In the other, either film or videotape is employed, as well.

How might we further refine the difference, then?

By attempting to understand the attitudes and purposes of those who shape the program experience.

We've already attempted to understand what we call the"live" class. These attitudes and purposes are clear in at least a general way.

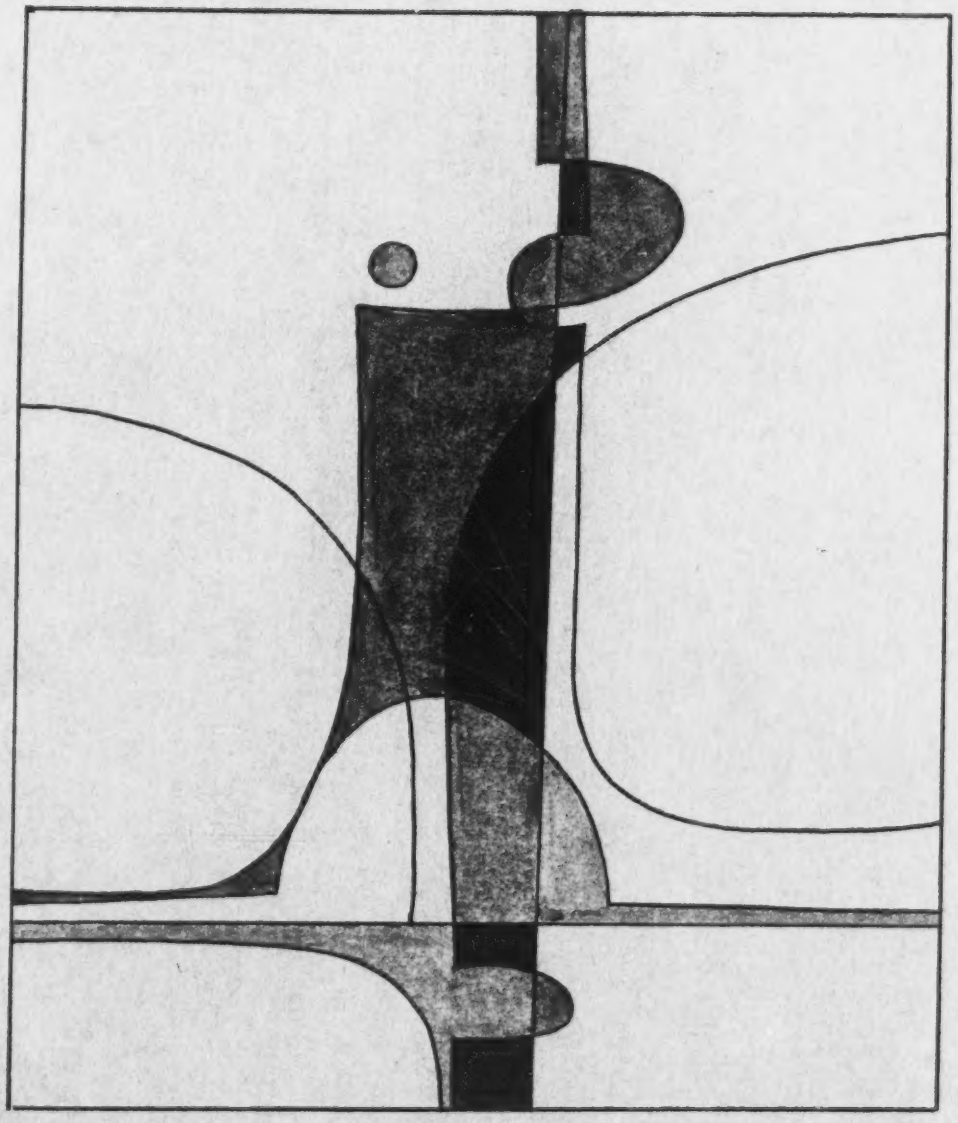
What about the class of programs we call "pre-recorded"?

And at this juncture, we come upon the theater form and its influence on television.

For, in this class of experience, be it studio or non-studio contained, the central attitude of the maker is one of simulation.

We are not thinking of simulation as prevarication. We're not thinking of lying. We are thinking of that attitude which is central to the theater: the attitude which leads to forming experience in such a way that it "appears" to be live. This attitude permeates much of what we call the history of those who work in the arts of motion picture, also.

And central to this understanding is the principle in theater referred to as "a willing suspension of disbelief."



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We are trying to understand the nature of the pre-recorded event. And particularly that one we might refer to as "fictional." We'll come to that term in a moment.

What is a willing suspension of disbelief?

It is an agreed upon state of mind. That is to say, the theatrician might say to his audience, were he given the opportunity to do so, "let's agree that what is happening here on this stage is happening here and nowhere else, and if you will agree to that, we will pretend that it is true. For the first and only time."

In order to maintain this pretending, certain formalities are agreed upon. The diversity of theater experience and those who follow it will determine a measure of acceptance concerning these formalities.

Some aspects of theater form are excrutiatingly naturalistic. And for those who accept that shape, the willing suspension of disbelief must be acutely heightened by a visual and auditory theatrical performance which is very close to a production of natural, everyday, sequential reality.

Other acceptances are of different kinds. Some theatrical forms are highly presentational, as against the representational which characterizes naturalistic theater. In these forms, signs and symbols design the events in theatrical space. The willing suspension of disbelief has appended to it an implication that if the audience will use its imagination, natural sequences, sounds, and dialogue will be made to "stand for something else," some meaning implied in their formal combination.

Between what we might call representational theater, on the one hand, and presentational theater on the other, there is a rich variety in the formation of the possible.

But, including the poles and between them, a common element prevails. It is dialogue.

And whether the theater includes dance and music independently or as well -- it is dialogue which binds all theater experience together.

Dialogue does not necessarily mean words and sentences exchanged between humans being something or someone other than themselves: what is central to the idea of dialogue is story telling. And story

telling is central to the theater.

"Let's agree that what is happening here on this stage is happening here and nowhere else. If you agree to that we will pretend that it is true. And for the first and only time," says the theatrician to his audience.

He contains and invigorates that state of mind by telling a story in a way which imparts those qualities.

And if there is a willing suspension of disbelief which joins us all in that theatrical moment, we will all pretend to believe the story. And, pretending, if it is performed superbly and consistent with its form, we will all know it is true.

If we have accepted the formality which is theater.

And in the splendid art of motion pictures, though the management of its substance is handled differently, much of the theater's history is central, too.

Until the motion picture entered our lives as an independent form, our theatrical formalities were confined to an architectural space to which we had to go in order to gather in the experience. When motion pictures came along, that technology made it possible for the theatrician-turned-motion picture-maker to exceed the boundaries of architectural space.

When he completed his story, however, of whatever accepted theatrical form it took, he returned to the architectural space of the theater. And invited his audience to join him there.

And he requested the same of them as his theater predecessors had before him.

He said, in effect, "if you will willingly suspend your disbelief about the actions that will take place here and now, I will tell you my version of a story."

And so, the movies extended the impulses of the theater by permitting the movie-theatrician to go beyond the limits of theater architecture.

He invited us to return to the stage, however. And built a theater in which to place his stage.

And his stage is a screen off which light is reflected so that we may see.

When sound recording arrived, he made it possible for us to hear, as well.

But in a theater.

A unique characteristic of television is that the "audience" need not go to the theater. It can stay at home. And the "audience" for a television program becomes a vast complex of separated privacies joined in a common experience, and often in time as well.

Where is the "audience"? If there is still any question about story telling being central to the theater and to motion pictures, take a moment out to reflect upon the word, audience.

In the midst of such reflection, we no doubt come upon television's special word for us, the "viewers."

Yet, viewers or audience, at the core of our pre-recorded experience in television is the notion of story telling.

Of course, not all pre-recorded television experience seems quite accurately described as story telling. But it is a reasonable way to try to understand the class, because it is the attitude that we are trying to distinguish. The attitude has to do essentially with "this is the place where it's happening now, and if you will suspend your disbelief about such matters, we will all pretend it's true -- for the first and only time."

So, some can fruitfully think of the broadcast of a pre-recorded experience as a pretending.

In this respect, it is different from the live broadcast, which is an event recorded on monitor faces and in amplifier columns in the same time continuum as the perceiver and the participant who participate with cameras and microphones.

If it is true that this story telling attitude is central in the pre-recorded broadcast experience, then it no doubt follows that certain influences from the theater are active in the work.

Story telling in the theater is drama. Drama is literature.

Theatrical literature is dialogue literature.

Our reflections upon these various phenomena, upon these forms and their influences, are being directed to our hoped-for understanding of the television medium.

In trying to understand this newer form, we are trying to

identify its unique characteristics.

Its most unique characteristic, we feel, is centered in its capacity to convert light and sound waves to electricity.

Because of this conversion the live broadcast is possible. The live broadcast has certain remarkable characteristics to which we've turned our attention.

And a question we are trying to answer is: how can we employ its "lifelike" nature in the design of a "made" object?

In coming to this answer, we have encountered a class of broadcast experience we have called pre-recorded.

And we are trying to understand the differences which separate the live broadcast from the pre-recorded broadcast, in other than technical terms.

We are speculating about a difference in attitude on the part of all participants between one and the other.

It seems reasonable to wonder whether the attitudes that prevail in the pre-recorded event are not influenced by those which have derived from theatrical experience and theater forms.

Four major elements have merged in this speculation: the principle of the willing suspension of disbelief, the central character of story telling, the insistence upon the illusion of the first and only time, and the persistent confinement of theater form to theater architecture.

Television is not theater. No theater architecture need be

involved. Because light-and-sound is converted to electricity, and these conversions are transmitted to another "place," theater space is eliminated.

A new space emerges.

Videospace.

Videospace is not theater space.

It is not architectural.

And when a live broadcast occurs in videospace, it is not theatrical. But, when a pre-recorded broadcast occurs in videospace, those who gave it its shape tend to function as though they were in theater space.

Their attention is directed to the studio, which is no more than a motion picture maker's version of the stage.

Of course his great freedom was given him when he could leave the architectural space of the theater. And he did so. But, before he returned to the theater architecture to present his version of the story, he constructed a controlled environment in which he could very carefully arrange the environment to suit the ends he sought.

He also went outdoors. He went beyond this architecture to the world around him.

But, in his attempts to "make" a theatrical-like event, he had to control a "stage-like" environment.

He constructed a studio.

And a television studio is like a motion picture studio.

Remember, the pre-recorded event we are most concerned with at this juncture is the one whose description we've borrowed from literature: the fictional event.

It is not an altogether satisfying term, but it does help us to understand the influence of the theater upon television. And in employing it, it does help us to understand attitudes which derive from what we have termed theater space -- and oppose those that we are trying to understand with respect to what we have termed videospace.

Story telling in the theater is drama. Drama is literature.

Theatrical literature is dialogue literature.

And whether the theatrical form is representational or presentational, whether naturalistic or symbolic, it is humans who perform the story.

Dialogue is central to this form, because in theater space, humans, as forms moving and voices speaking, are central.

And central to attitudes which evolve from such concern is the one we can describe as "pretending."

A pre-recorded broadcast such as we are considering can be thought of, then, as a pretending.

And this pretending, to which we give credence, has come from our experience in theater space.

But a new space exists. We are calling it videospace. And the perceiver of experience in this medium need not leave his home.

The experience occurs in videospace which is generally situated in an environment more private and intimate than public.

The sights and sounds which occur in videospace tend to occur in private.

This may be something new to think about. But before we can, we must stay with the theater and its influence on the attitudes of those who compose a pretending in television.

Primarily, in this sense, we are influenced by story telling. And dialogue, or humans moving and speaking in theater space, attracts our creative forces.

"Let's agree that what is happening here on this stage is happening here and nowhere else. If you agree to that we will pretend that it is true -- for the first and only time." This is what the theatrician might tell his audience were he given the opportunity.

For the first and only time.

That's the possibility that joins the theater to television most unreservingly. The first and only time.

The notion of "the first and only time" is in the broadcast of the live event.

It is the first and only time.

"Because of the unusual ending," says the motion picture distributor or theater manager, "patrons will not be seated in the final twenty minutes."

"Don't tell your friends who the killer is," says another.

Why?

Because in story telling, it's the unpredictable, the inability to predict the outcome, that makes the story so lifelike.

Everyone participates in the event -- whether live and actual or predetermined and fictional.

And in either case, if it is performed superbly and consistent with its form, we will all know it's true.

Someone has said, "Truth is not what we discover. It is what we create."

The feeling generated in that statement can be valuable when one is reflecting on the unique characteristics of the television medium.

In part, it is because of the place of videospace, which is essentially a private, not a public place.

Would it not be consistent with our understanding of the qualities of the live event to suggest that if the "made" event were formed in such a way that the perceiver could participate in some sense as the maker has, the "made" event would be lifelike?

The television medium has unique characteristics which tend to support this possibility.

But let us not mislead ourselves. In no case, does the record of life as it appears in videospace, be it live or pre-recorded, supersede actual, on-going, ambiant and concentrated natural life.

We are thinking about the made form, not the natural form.

We are thinking about form.

We are thinking about art.

We are thinking about art in a newer medium.

And we are trying to understand the nature of the forms not only unique to, but influencing the television medium.

We have come to this.

Because of television's unique technology, a live event occurring in one place appears to be occurring in another at the same time.

The appearance occurs in videospace.

The event has the participation of both recorder and perceiver in that both cannot predict the outcome of the event.

This is the special character of what we have termed the live broadcast. Though the influences of theater and motion picture forms are certainly present here, their influence is diminished by the actual sequential unpredetermined unfolding of natural experience.

The event is not "made" in the sense we have applied to the "non-natural" event.

In this, the pre-recorded event, the influence of theater and motion picture forms is very great.

How can we capture what is unique to the television medium and "formalize" it?

One, and the principal consciousness, is to shift our attitudes from theater space to videospace.

We must separate ourselves from the theater, or, at the very

least, appreciate its immense influence when we apply ourselves to forms indigenous to videospace.

If subject, maker, and object can be present in the same time continuum, it may serve.

If the object is made to appear live the perceiver may participate in the feeling of unpredictability concerning its outcome, just as he has learned to do in theater and motion pictures.

But in videospace terms, not in theater space terms.

If formalities in theater space are designed to anticipate a willing suspension of disbelief, and designed to tell a story, and are made to appear as though they are occurring for the first and only time -- how can we apply such pretending, for pretending it must be, to the made event designed to occur in videospace?

Formally, we must resist.

The farther we can remove ourselves from the influence of theater space, the closer we shall move toward videospace.

The farther we can remove ourselves from pretending, the closer we will move toward the nature of the medium of television.

If we are able to do this, we may discover the art of the medium.

It may have story telling characteristics. But of a new all-at-once order. But it won't be pretending.

It may have words and sentences. But not pretense. It may have humans. But not humans pretending, not slices of life.

We will not ask one another to suspend our disbelief. We will be trying not to pretend.

And the occurrence in videospace will appear for the first time. But not for the first and only time.

We may be able to experience it again and again.

Let's move around.

7

The first and only time. First, yes. But why only?

Because the technology is moving swiftly. And just as sound recording moved music from the concert hall to the home, so videotape recording and playback technology is expanding in the same direction.

And how appropriate. Since that is the location of videospace.

What will it be? What will be the contexts in which this will occur?

Well, for one; it is likely that cablevision technology will have greatly proliferated. We will be capable of selecting one from many channels of possibility. As many as twenty or more.

There will be less dependency on national networking as we

know it today. In this form it may not exist at all.

Further, the size of the surface of our monitor will no doubt have increased. Indeed, our monitor will probably not look like the old box at all. It will probably be designed to appear more like a blank hanging picture. There will be many sizes. One for every pocketbook. Some may, indeed, be as large as the wall itself.

But, with respect to our quest, the most marvelous technical development of all: we will be able to program what we like, and in our own time. That is to say, just as we have a record player for our sound recordings today, in the future it very much looks like we will have a sound and sight playback device, as well.

Though this technology is with us today, it will probably not get to the home in the manner we are describing for, perhaps, a half dozen years. Electrons move us swiftly, however; we must be careful about predicting events of this nature too conservatively. Given the nature of the economy in which we now dwell, if the public seeks it, the public will have it. Or, whether the public seeks it or not, if it seems a feasible means of making a profit, the people may be made to feel we want it.

In any case, it is difficult to imagine our not having it, one way or the other.

So -- we no doubt will. In time.

And when that time arrives, we will be able to program our own choices in videospace.

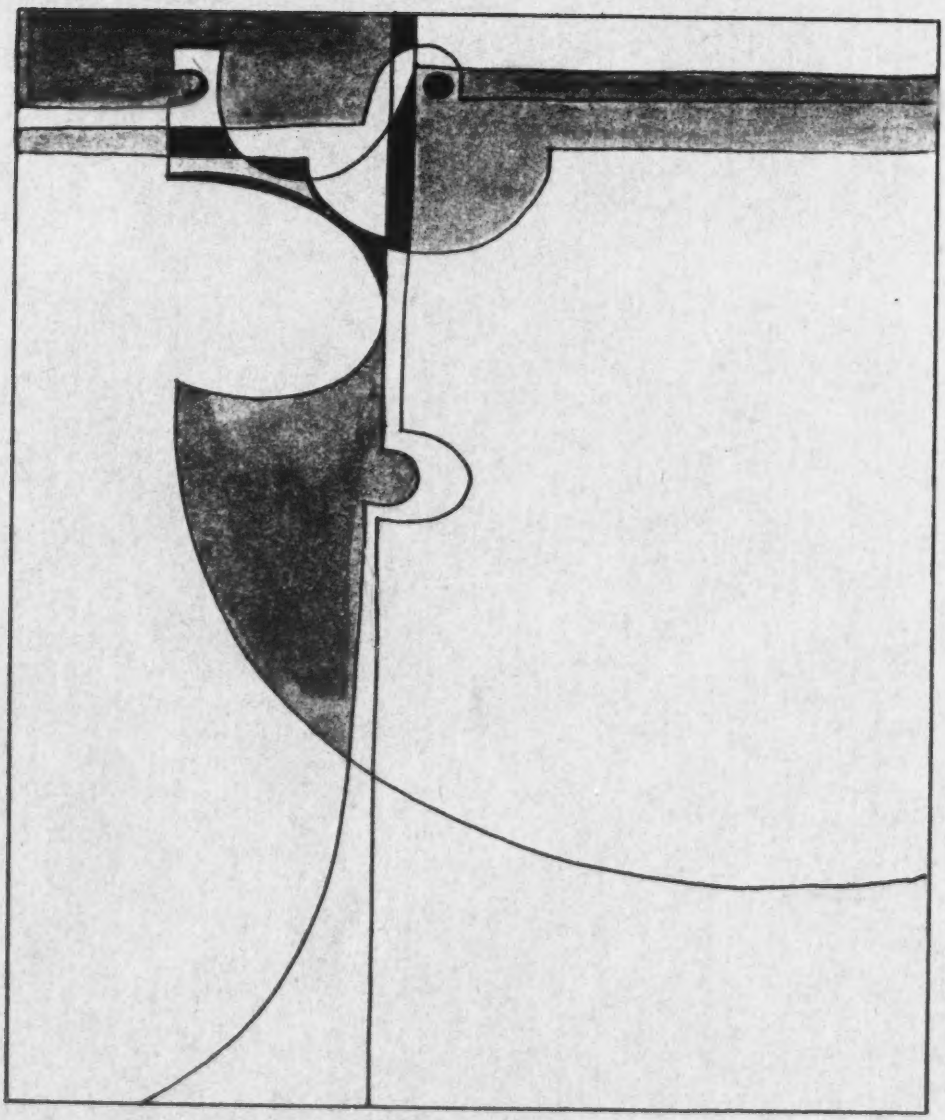
The question persists -- just as when we look at one another -- what will we distribute?

And that's something to think about.

The activities of those who are thoughtful about the medium and videospace will be thinking and conceiving very much in pre-recorded terms.

Will this new potential be only an extension of the theater, journalism, motion pictures, and radio? Or, will we be making in a form whose shape is derived from the nature of the medium?

That's another part of the exploration to reflect upon.



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8

Videospace can be employed in two different ways: (1) as a terminal in the transfer of sound and visual images from one point to another, or (2) as a field in which the mix finally occurs.

In one, the tools and techniques are essentially those of the theater and of motion pictures. In the other, the tools and techniques are electronic and uniquely television's.

Used in either way and either pre-recorded or live, videospace is television's space. None other.

Videospace is a new term that may help us to become acquainted with the television medium in ways we have not thought of in conventional practice.

Videospace is mosaic. Mosaic composed of sights and sounds.

What is seeable and seen; what is hearable and heard. The material of videospace is electronic. Electrons are quintessentially motion.

In videospace, the light and sound have been converted to electricity. Electricity is the movement of electrons. And the movement of electrons in videospace can be designed to look like and be heard like the natural world. The images can be representational. The images can also be made to look like and be heard like whatever shapes we choose of an unnatural kind. To be sure, we who make, being humans, select our images from our experience of the natural world. But given nature as a source, our experience and imagination as perspective, we can combine images in such a way as to create a form essentially referential as against representative.

Motion, or movement, is the combining.

Motion is irrevocably central to an understanding of the medium, because electrons are central.

A motionless electron is almost unthinkable, because to be motionless would be to change its nature.

The face of the television monitor upon which visual images play is of two dimensions; height and width. In this respect, it is somewhat like the surfaces upon which the graphic arts are played. Theirs are two-dimensional, also.

Because of the electronic nature of the television medium this two dimensional surface is in motion.

And though its height and width can be variable, it is always

in the ratio of 3 x 4. This surface is three units high and four units wide; a rectangle, in effect.

This is the territory, the geography of videospace. This, too, will change, but for the moment this it is.

Electrons are the material from which images are made in videospace. But these electrons are the result of a conversion of a light source and a sound source to electricity.

It is this notion of conversion which gives us a clue to a new way of thinking about the medium whose expression can be objectified in videospace.

For, in the principles of conversion we come upon a new kind of instrumentation. And it is with these newer instruments that new forms of expression may emerge. Another means of expression is available to us if we elect to acquaint and sophisticate ourselves with these new instruments.

Microphones have been with us for a long time. Audiotape, a lesser time. Electric cameras even a lesser. And videotape is the newest of these four.

Microphones and electric cameras convert sound and sight to electricity. Audiotape and videotape record and playback devices convert this electricity to a compatible mode which makes possible the retention and reconversion of these impulses.

Amplifiers have been with us for a long time. Viewing-monitors for a lesser time.

These, together with the modulation, amplification, synchronization and storage circuitry required, constitute the essential instruments of the medium. Electrons are the material.

Videospace is that environment in which the combined conversions of light and sound to electricity occur perceivably and formally.

Though we have tended not to think this way, this is the only environment in which these conversions can occur expressively, save one.

They can occur on oscilloscopes, as sine curves and wave forms. But this form of expression is less readily available, it having been devised essentially for the engineer to realize and measure the finite character of electronic motion. Conversion, modulation, amplification, synchronization, and storage is maintained by complex circuitry, and the relations of these circuits and the power which sustains the flow of electrons through them, must be balanced and synchronized.

Balance, synchronization and measurement is perceivable. Since the electron flow, itself, is not perceivable directly, its activity is indirectly known through recognizable patterns appearing on the surface of these oscilloscopes. And though one can argue that this is a form of expression, it is such only insofar as it serves the experience occurring in videospace.

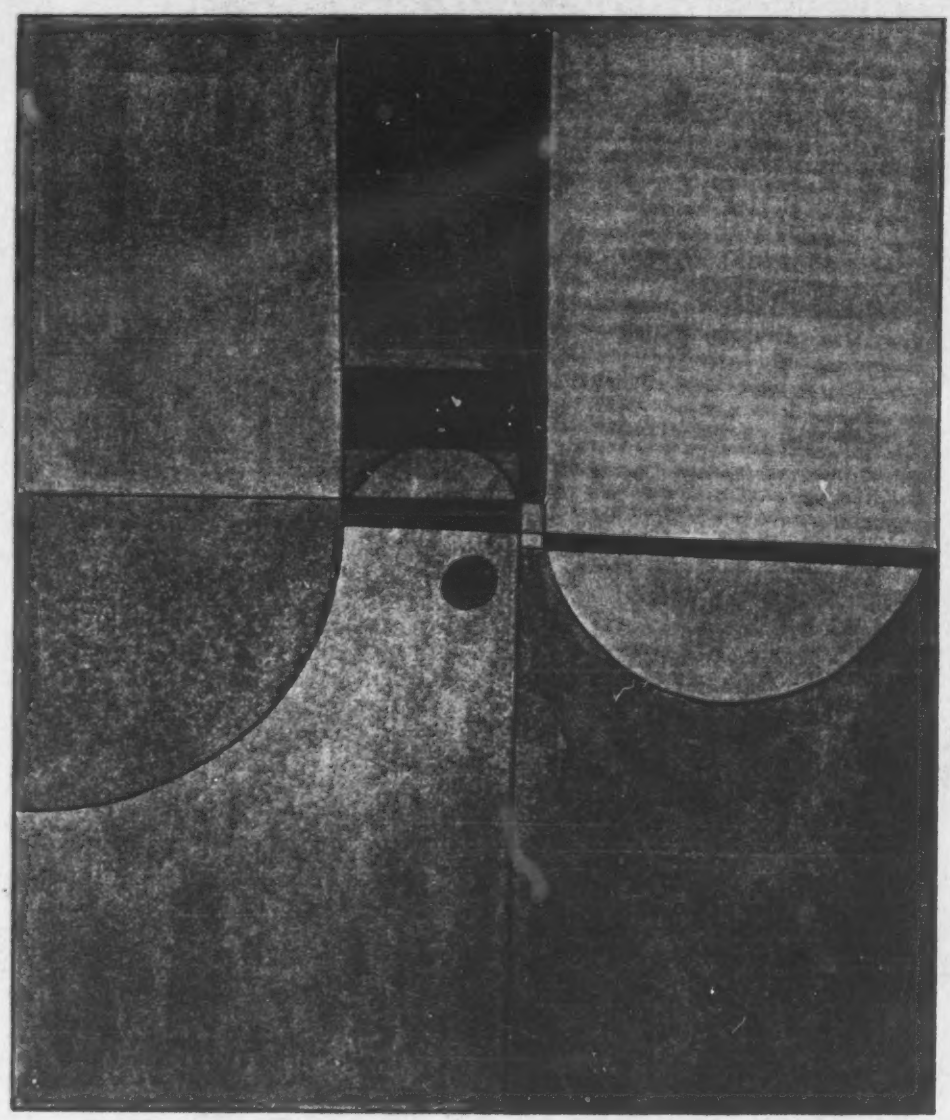
Indeed, one may even use the sine curves and wave forms, but

their use would apply to videospace in such case, and not to the measurement of electrons in motion.

Videospace is that environment in which the combined conversions of light and sound to electricity occur. Perceivably and formally. It is here where expression is realized.

Videospace is a hearing as well as a seeing.

What might we hear in videospace?



9

Perhaps the most remarkable thing one can say about sound is that it is always with us. Apparently we are hearing all the time of our lives. We are hearing. But, do we listen? And what do we hear? The answers to these questions may represent each of our most individual characteristics.

Now, these thoughts have little to do with the old philosophic saw about the tree which falls in the forest, does it or does it not make a sound if no one is present. Of course, that puzzle is irrelevant unless one is speculating about physical laws. Sound is one thing and sound waves and ear drums are something else.

Sound is something which can be heard. If we listen. And when we do we can be very deeply affected.

The fact that few of us spend much time in vacuums makes sound's all-embracing presence constant. But something else. 360 degrees worth. Whereas the other means by which the outer world impinges on our nervous system tend to be directional, the remarkable capacity of the human hearing organization gives us the power to receive sound from all degrees of angle and direction. And simultaneously. If we listen.

We are wrapped in sound. We are bathed in sound. Sound becomes the very texture of the air through which we breathe and move from the moment we emerge from the womb. Whereas, up to that moment, we had been bathed in a salty liquid fluid -- when we leave our mother's warm ocean we enter a new environment. And we are bathed in sound. Air is not only sustenance. It is a continuous medium -- for sound to mingle and shimmer in. And no matter where we are with respect to the surface of the planet, we are always at the center of sound. In every direction we move, we are as a sound-borne ship interrupting the remarkable convergencies of all else that is and moves.

Certainly any aspect of acculturated man would not have occurred the way it has without this audible presence. Speech? Reason? Literature? Would any of these remarkable inventions been possible if all were absolute, relentless, blank, endless silence? Helen Keller wouldn't have been able to ever speak if it had not been for sound she couldn't hear. And were it not for this incredible capacity, our predecessors of some thousands of years would not have discovered the

mysterious vocal folds. How much is speech a copy of universal sound? How much is rational thought? Sound is a super trip. And men commenced the journey millions of years ago.

What magnificent order of the human nervous system has accepted the responsibility for hearing? What keeps each of us from being lost in the continuous ambiant sound babble? Why do some of us hear one thing, and others another as we all congregate to do whatever we all are doing?

Shakespeare wanted us to lend him our ears. Lend, not give. He knew that would be impossible. He probably also knew that words were not enough.

And they aren't. Not when it comes to this super journey we are all taking in this sea of air which is the special environment of organic animal life. Words are not enough if we choose to listen.

Music attests to that.

And music is simply another ordering of sound possibility. And what a composer does is coax out from the immense mosaic another aspect of man's uninterrupted statement of pattern. He makes a kind of bas-relief of sound. He employs his capacity to be discrete. He uses his discretion, given certain sophisticated perceptions. And if we're willing, we might hear what he hears. What he hears?

Where did he hear it if it didn't exist before he discretely made it? Made this pattern which is his ordering of sound perception. He heard it in this sound-air we all live in together. And some

ordering principle present in his nervous system mulled it over. And came up with this possibility which he made. And it isn't a word. But it is sound. And we can hear if we listen.

Now, take television, for instance. Those who manage and are responsible for this technology do so as if they had no ears. In view of the nature of sound presence, this is almost incredible. But, not quite. Because we all must know that we of the Western world have been taught and guided by a rather narrow principle: seeing is believing. It's not the only principle, of course, but ever since we started to reason, which apparently began about Plato's time -- this notion of "seeing is believing" has permeated much of our lives. Of course, it is a true statement. But, so is "hearing is believing," or "smelling is believing," etc. Apparently we've put a very great deal of our attention on this "seeing is believing" matter. And, it may have narrowed our experience. Not that life for us in the West hasn't been enormously fruitful; for it has. But, perhaps there are marvelous qualities native to the human organism which lie fallow. Because they are not touched only by this "seeing is believing" wand.

In any case, those who concern themselves with the shapes of television have not been very attentive. We who work in this medium have not played much with sound.

Tell a vision.

Of course, radio took care of all that, some may feel. Hearing

is believing, for those who manage radio. And when television became a part of our lives, many of us simply turned our ears away. Not actually, but apparently. This, too, is understandable when we remind ourselves of television's invention: to transmit (electric/radio) photographed images.

But, now we're becoming aware. And some of us are beginning to wonder about a medium whose capacities are greater.

The television medium is as capable of giving form to sound as it is to sight. To fully appreciate this, however, we must begin to listen.

The technology is available. There is simply no question about that.

What we have to realize is that experience is limited without sound. Indeed, it isn't even true.

And, furthermore, as we listen -- learning how to believe this -- we have to attend to the fact that most of what we hear is not a composition of words.

This will be immensely difficult for those of us who are responsible for television. Partly it will be difficult, because many of us do not attend to images, sign or symbol in sight either. Mostly we're concerned with getting something distributed somewhere.

As -- with respect to sound -- someone's fingers moving across a piano keyboard, or someone's lips pursed about an oboe reed, or the bell of a horn, or a bow slicing a curious space; or someone's

mouth about to speak or speaking. Or teeth. Or hands. Or feet. Or waistlines. Or throats and stomachs with little jackhammers floating in them performing bubbles. Or print floating by. Or faces. With hair. Or, without hair? All of it. Distributed. Somewhere.

What do we hear?

Do we hear anything?

What is noise?

The television medium can be a hearing and a seeing. And a being. And a believing, if anyone cares about that.

Cubism, collage, mosaic.

In sight. In sound. Out of sight.

Just as light, not illumination, often reveals its object in shadow -- so sound, not word or music, reveals its object in silence or, at least, its muted absence. Often. But not often enough in the television medium.

Just as general practice in television reveals an abhorrence for "black" (an absence of picture), so does it abhor silence, or for what passes as absence of sound.

So great is the concern for an object of distribution that an unrevealing fear guides the minds of those who manage the medium -- the fear that if there is "black" and "silence" the distribution object, "the viewer," will go away. Of course he won't go away. He can't. Unless at that moment, he dies. But, he can direct his attention elsewhere. Would he direct his attention elsewhere if others'

attention were directed to him whose organism includes capacities for "lightless" and "soundless" landscapes? For those "blinding" insights which are his alone? For that timeless vacuum of the spirit that "unmanaged," is capable of being instantly filled? Who knows?

Can we think about ambiance, together? Ambiance may prove to be for the art historian of the future a very central part of the subject matter of the contemporary artist. The television medium is remarkably conformed to give meaningful form to ambiant sight and sound.

We are all becoming so acutely aware of one another's presence, whether or not we want to be. The artist no less than the rest of us. And so much of the contemporary human act is manifest in an ambiant present.

With respect to sound, for instance, noise has other meaning than that attributed to it by those remarkable mathematicians and scientists who devised the organization and language of information theory. From which the models of the communication process have grown and made their mark. Noise is not simply interruption of sense and reason, not merely an intrusion upon an orderly condition. In the urban life of modern man, noise can be thought of as texture in and out of which our aural consciousness weaves our individual thread of perception. Out of which we keep track of our identity in the sound-air through which we move. A sound artist might proceed that way. Instead of suppression, it becomes awareness, an invitation to

be discrete in another way than target consciousness.

Do you ever have the feeling that the clarity we seek is not at the center of our attention, but at its edge? That, somehow, the sound and the vision is trying to break through at the outer perimeter? That that's where "the other" is, and that we must turn to listen and to see? That the "natural" order is no longer sequence? That sequence is something, but not enough?

Where is where we are when we're trying to make out the surface of the moon through the thousands of bubbling dots that are brewing on our television monitor which is almost instantaneously reorganizing radio signals into recognizable shapes that were first light reflected through a lens to an electric/mosaic in a television camera 280,000 miles away. Where we are is where we were before it is.

And with respect to sound, was it only Frank Borman's voice? Or was it his voice, plus static, plus other voices at Houston, plus the clock ticking on the mantel, plus the baby stirring in the other room, plus a neighbor shouting over a can of beer, plus the dog barking, plus an airplane flying overhead. Plus, the awesome awareness of our own heartbeat thrumming in our ears. Plus our wife's exclamation as we knocked over the ashtray while jumping up to shout "Look at the bloody moon!"

And then, looking out the window. And seeing it for the first time in the old way.

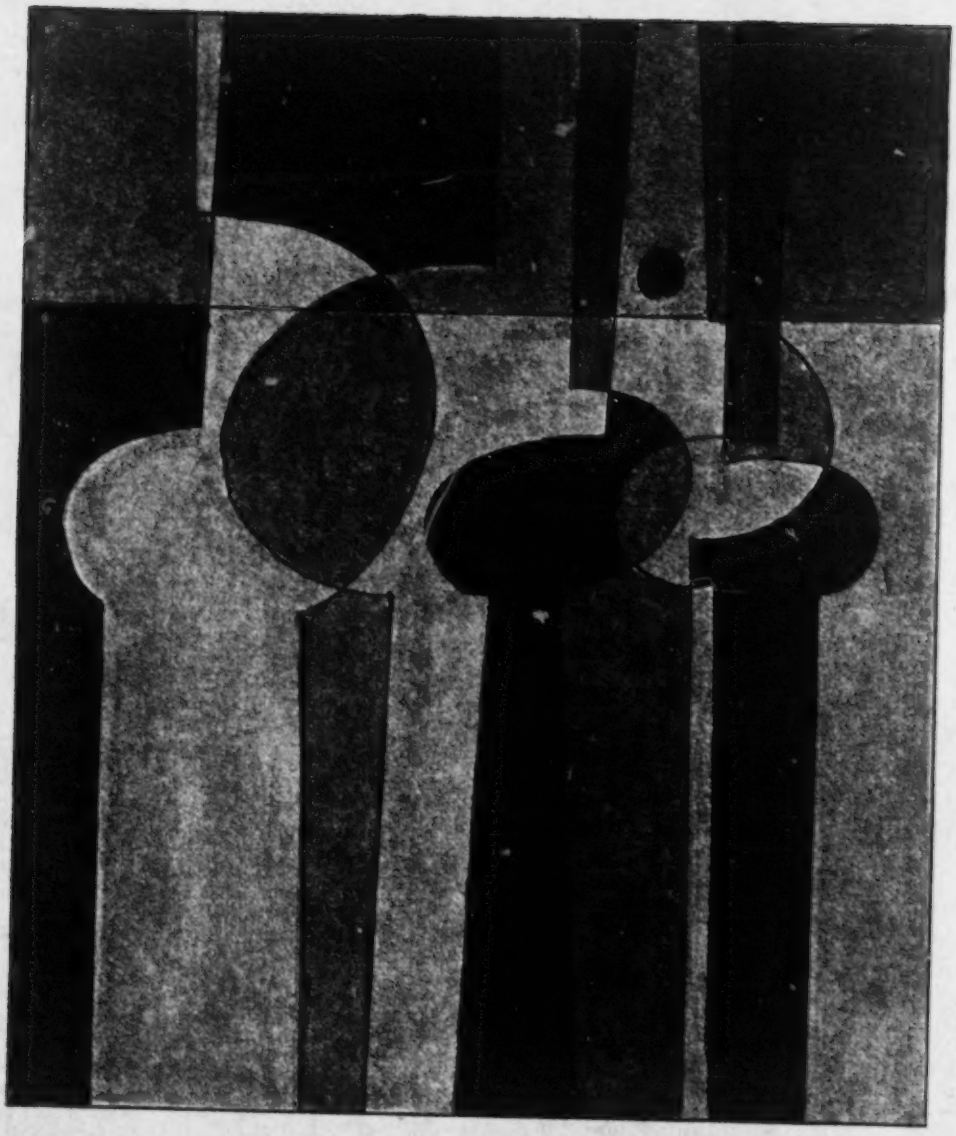
The television medium is a remarkable means to express ourselves in the ambiant. Just as it is a remarkable means for a great many to share the natural sequential event.

Yes, there's lots to be said for television. More than meets the eye.

Of sound, there is more.

So -- here is the medium other than an agency for distribution. Here is the newest surface, the newer space. And in the newer space we can hear one another. But, not necessarily as journalistic documents. Nor as candid photos with candid sounds, all sliced out of life. But as real, where we are all makers.

An idiot box? Why an idiot box? Who decided that?



10

What is theater space with respect to a television studio?

One can see it best when, upon entering a studio, he squints his eyes and blurs the edges of his seeing. He will catch the outline of a proscenium arch. Not always, but very frequently.

And when he cannot "see" the proscenium arch, he might step back and see the camera placement, more or less lined up in a slightly arcing row; as in the orchestra. Not always, but a very great deal of the time.

Or, if still he cannot perceive its outline, he may lift his head and see the lighting instruments of the theater. Yes, some studios employ slight refinements of the instruments. But, by and large, they are interchangeable with the stage.

He may discover other clues. He may notice how quickly cable can be tied in knots if the cameras are moved 360 degrees. They are rarely moved so; power outlets are usually lined up along walls. Not always. But quite frequently.

Of course, the very strongest clue of all will be the set. Though the dimensions of its flats will be of a different order than those used on the stage, they will have a similar shape and, more frequently than not, be made of the same materials.

Another clue might be perspective; the way a painter has applied line and color to the muslin surfaces. Or the pot of sizing standing by with a still-wet brush where a newly erected angle of cloth has been placed to appear to look like the corner of a building.

If the studio is being used to contain a drama that day there will be planes and angles, steps and masses, glasses and spoons, and chairs and beds and food and water. And pillows and cupboards and refrigerators and stoves.

And if anyone is having difficulty understanding the emphasis on moving photographs being distributed from one place to another, move around this simulated "real" made world, and see what light waves will pass through the lenses of the cameras.

Those who are responsible for that environment are essentially concerned with theater space. Only as it applies to an accurate transfer of the picture are they very much interested in conversion.

Conversion has something to do with electricity. Let the engineers concern themselves with that.

Theater space is only a few feet away. Videospace is miles away.

Videospace is the depository of a thousand nerve paths. Theater space is of the body, of the outside of the head. Not the inside. The outside of the spirit, not the inside.

Theater space is concerned with matters that are experienced from the outside in. Videospace is the other view of that possibility.

What is theater space with respect to a television studio?

It is born of the architecture of the theater. And borrowing from the history of motion pictures, if we can afford it, our studio is huge. It is as large as our monies will allow.

"Silence," announces the floor manager. Manager! Stage Manager! Manager!

"Places, please," says the other.

How in heaven's name can anyone function "live" as another is pointing his finger with one hand and toward a red light on a camera with the other?

Red in our culture has always implied danger. Stop! Beware! Don't enter! Stay out!

These encumbrances are television's application of theater practice through motion picture studio practice in lineage

going backstage. Or on stage.

They are probably designed in practice to have something to do with a curtain going up or the mystery of moving out of "real" life into "pretend" life.

Actually, only a professional performer can handle the shock of that intense psychological shift. And even he trembles at the leap he's got to make.

The non-performer is often wiped out. How often the screen reveals, in the early moments of a program purported to engage non-performers, a stiff and unlifelike individual who, as the experience unfolds, we discover is a human like ourselves despite the pretend environment in which he has been asked to function.

He's in theater space all right, and how uncomfortable he often seems. And how uncomfortable he often makes us feel!

He's in theater space. He'd be better off at home, where he can trust others to accept him as he is.

No, unfortunately, theater space is not restricted to the fictional event in a television studio.

Theater is practically always there. Linear, discrete, formed in sequence. Predetermined.

And without the support of willing suspensions of disbelief, of the story to be told, theater space can make people feel very strangely displaced in a television studio.

It's partly the history of the theater and partly that of

motion pictures which has created this dilemma for the non-performer.

For the performer, it is not even television. It's the stage. With cameras and lights. Or it's the motion pictures. With cameras and lights.

It's only television if it's broadcast live. And for the performer whose tradition is theater space, like those who sustain these conventions learned from other forms -- it's the distribution that he is most concerned about.

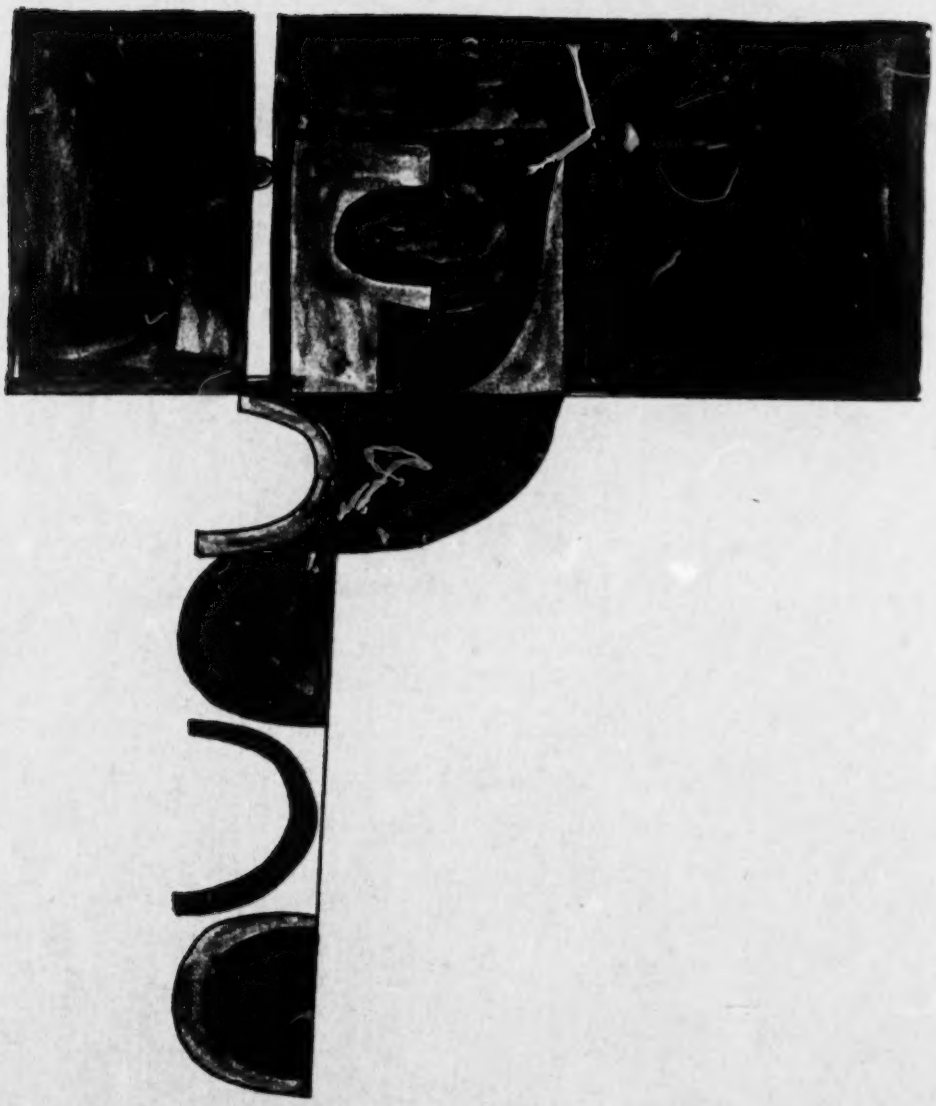
From theater space. Which is in a television studio. Which is like a motion picture studio. Which grew from the forehead of the stage.

Theater space is close to television as distribution medium. Videospace is close to television as medium.

Both are valuable to our cultural life. We've had plenty of the former. We might now begin to think of this newer way.

In videospace the images can be human-like, as are those drawn from the history of the theater and of motion pictures -- from theater space. But it may be true that they are more videospace-like if they are conceived with the television monitor's motion and its two dimensionality central.

They may be closer to the nature of the medium -- its "liveness" -- if they are conceived to match the newer making process, as well; not predetermined, not rehearsed, not fixed. But emerging from a circumscribed area in which spontaneity and improvisation are allowed.



11

What is the role or function of journalism in the television medium? Do influences from the history of theater and motion pictures play any part in such a function?

Take a film documentary, for instance. Where do these influences meet in such a form? Is journalism, theater or motion pictures central? Certainly not the television medium, save as it is employed as a system of distribution.

Yet, it is undoubtedly true, also, that the growth of the film documentary is directly related to the growth of the television medium.

Is the content of the film documentary a matter for journalists to determine, or filmmakers, or television distribution agents? Does

the theater play any part in such substantive decisions?

What is the essential difference between news that will be presented each day at 6:00 and 10:00 p.m. and a film documentary which is assigned to a filmmaker in March to be distributed by television in September?

The edges are blurring. Is there something in television that is contributing to this confusion in definition?

If it is, it must have something to do with this unique "live" feeling everyone has about television.

For instance, the news that is to be distributed at 6:00 and 10:00 will be preceded by an announcer's voice which will say something like this: "Channel X brings you the Channel X News live from Central City." Next we are introduced to an individual of coridal but authoritative mien, who as a rule, is just completing the shuffling of some manuscript papers at his desk. He looks at us intently, introduces himself, and proceeds to tell us what is happening. Who is telling us what is happening?

Most important to the point, however, is an announcement at the end of the program which has included (besides cordial and penetrating authoritative individuals) film or videotape inserts. A graphic statement will read or an announcer will say, "portions of the preceding program have been pre-recorded."

Those who manage the television medium seem to want to be certain that we are able to distinguish between the live and the non-live

event.

Why does this concern them? Is it law or fiat or morality, or what?

Is there something "made" about one and not the other? Is it possible they may feel we might think one is one thing and the other is another?

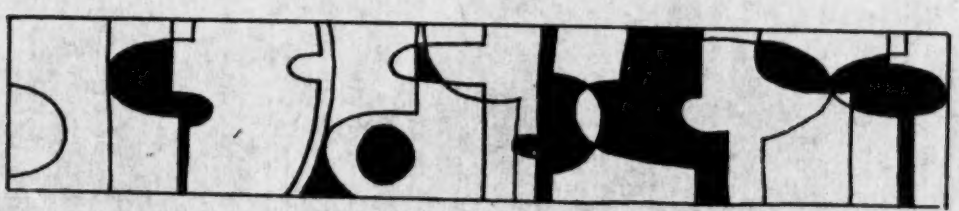
This super consciousness of "liveness" occurs again and again in the television medium.

Something unique and remarkable has become a part of our lives.

Another question that troubles journalists: what is an editorial in television? Is a film documentary shaped in any way by an opinion?

Or, putting it another way, can a journalist reporting the news have an opinion about what he is reporting?

What is his face saying that his lips are not? Or, what are his lips saying that his words are not? What is happening when he looks directly at us during this live distribution? Or, when he drops his eyes and looks at his manuscript about which he seems to be mak-



ing a point of our concern, as well. Is he telling us he has previously written the words? Who wrote the words? Or, is he looking for his place?

Is he a performer, a journalist, or what?

Is he able to tell us how he feels? Is he able to keep from telling us?

When is he allowed to tell us, and when is it bad form?

Bad form. What is the form?

Many of these questions will appear either irrelevant or impertinent to some. For instance, everyone seems to know the difference between the news and a film documentary. But do we actually? In either presentation, are we clear about the histories of theater, journalism, motion pictures, and radio as they influence our efforts in television? Do we know how these influences shape the substances our efforts contain?

And do we appreciate the importance of understanding the differences which separate the live from the pre-recorded event?

Television seems to possess dynamics not attributable to other media.

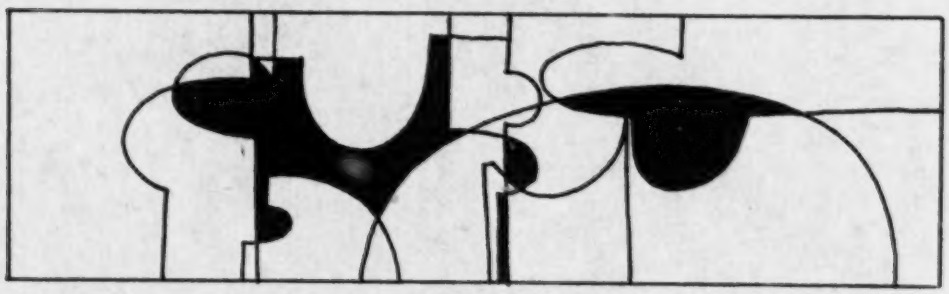
Its practice alerts us to a certain consciousness we may not have previously experienced in our acculturation.

Newspapers and magazines seem to be closer in lineage to literature. Public affairs, news, and film documentary programs appear to be closer to motion pictures and theater history which, in turn,

as story telling forms may even at base, precede literature.

What is a public affairs program? How does its class differ from that which is conventionally termed "cultural affairs"?

Is one "opinion" and the other not? Does one approach more formal definition, as say art does, or does the other have, itself, a recognizable form as formal as those attributed to culture?



Are news and public affairs alike? Is there any news in cultural affairs?

Why does conventional television practice make the distinction anyway? What are we who manage television saying to our public?

Is entertainment cultural or is it educational? There are those who say it makes no difference one way or the other what the definition is.

And if this is so, perhaps we cannot be concerned about medium at all, actually. Perhaps our only concerns can be directed to principles of distribution.

National news magazines tend to place cultural information

in "the back of the book," as the language is employed in the trade. Is culture the back of the book?

What histories are feeding television in the substance of these questions? Which predominates: theater, journalism, motion pictures, or radio?

Every question which can be narrowed to auditory experience exclusive of any visual revelation, can be asked of those who managed radio before the advent of television. And theater and journalism history fed them.

Television inherited much from radio.

What it introduced into media was the influence of motion pictures.

What it brought with it, independent of all the others, was the capacity to witness an electronic manifestation of an event in the same time continuum as all participants.

Conversion is its unique gift; the conversion of light and sound waves to electricity.

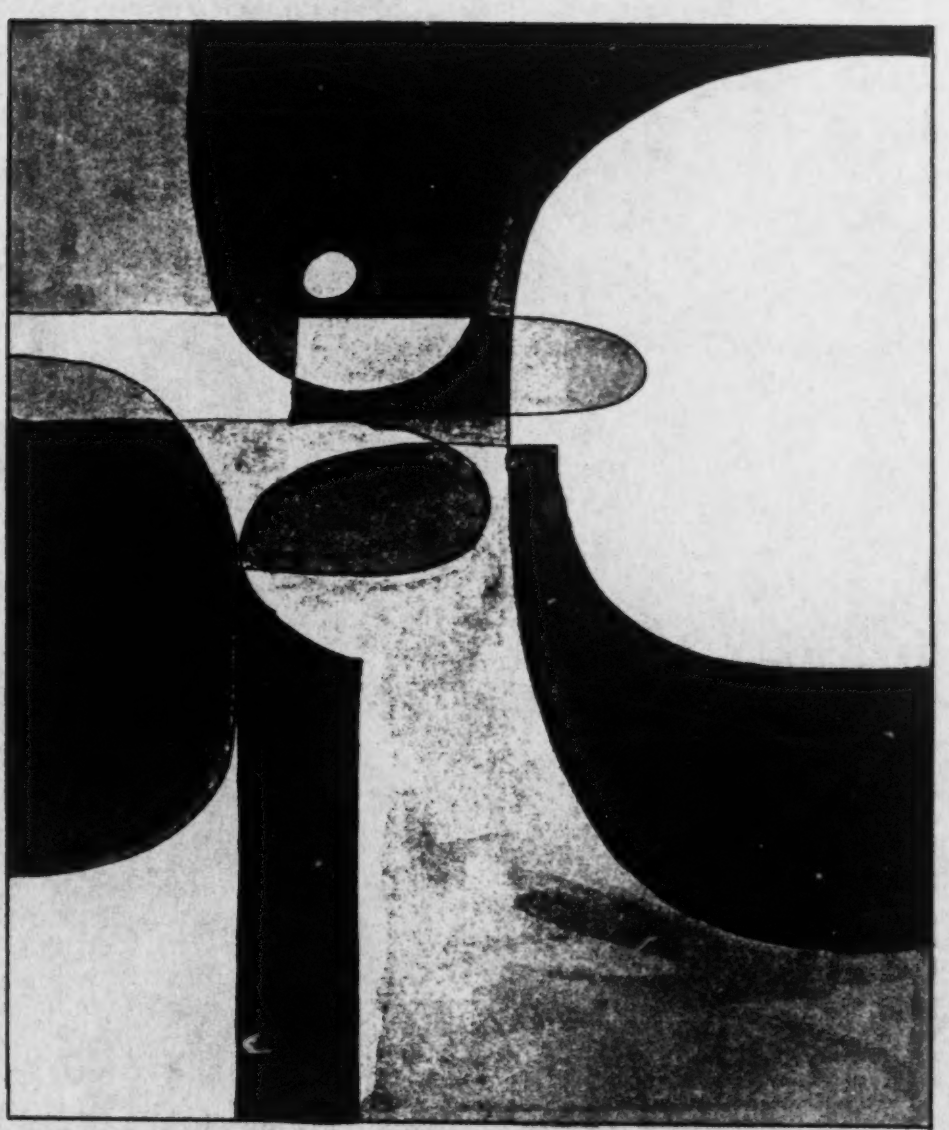
And all the questions raised here with respect to the medium of television are asked in hope that new answers with new dynamics will generate a more humanly productive life for us all.

We are all capable of being live.

That implies, among other things, that we are all capable of participation.

We can be engaged.

We have been carrying images of theater, journalism, motion pictures and radio histories for more than twenty years by the medium of television. May we not also consider the images generated of electronic material, however they are to be carried? Live or prerecorded?



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Control of form and prediction are at least two of the acculturation factors in man's growth. The civilizing process, though not solely concerned with control and prediction, attempts to master these aspects of the human condition.

So much of the practice of television is concerned with being able to control one's activity, thus, predict its outcome. The means by which we accomplish this are pretty well established in planning, in production practice, in union and corporate management, and so on.

How has television been employed thus far in our history? Can we identify classes of experience which derive from it?

Well, we have already referred to the live televised event. Using the terminology of television, what other kinds of "programs"

are there?

The live televised event occurring in natural sequence may be described as being of two orders: (1) the sporting event comprising two or more forces meeting in some kind of organized or formal competition; (2) the journalistic event wherein some social experience regarded as "newsworthy" is brought to the center of our attention.

Some may quarrel with the use of the term "natural sequence," but the intent, certainly, is clear. We are thinking here of those experiences whose sequences and outcomes cannot be wholly predicted.

These are not the only kinds of live televised events occurring in natural sequence, however. Someone has suggested that the only form which has been truly invented for television is "the game show." Whether or not this is accurate, this kind of experience can also be classed as an event occurring in natural sequence. And in common with the two previously suggested, its outcome is uncertain. This is readily appreciated when we recall the deep disturbance that transfixed the television industry, the public, and our national Congress during that period when certain game competititons had been exposed as "fixed" or, to put it another way, their outcome predetermined.

Though we can identify other kinds of live television transmissions as appearing to have different characteristics, careful reflection will no doubt lead us to conclude that instructional broadcasts, be they of the order of medicine, industry, pure pedagogy, or

daily newscasting are essentially of the same order -- if we are speaking of the live, televised event.

For those who would wish to quarrel with -- say -- the live newscast, note the delight, if such is the tone -- or despair, if it be otherwise -- with which we empathize with the newscaster who loses his cue, his place in the script, mispronounces a word, or who is left unsupported when some aspect of the sequence which he predicts will contain him, breaks down.

So -- on the one hand, we have the live telecast, be it origination beyond or within the studio complex. And on the other -----?

We must identify other orders of our conventional television experience. Remember, we are leading ourselves toward as clear an understanding of form as we can muster. This, so that we may finally appreciate the nature of the medium -- exclusive of its broadcast characteristics.

It is likely that it is because of television's distribution character that film has become so much a part of television's conventions. And, indeed, until the American film industry assimilated the truth of television's distribution capabilities, it reeled from the impact of television's swift, economic challenge in the early '50's.

Once it was understood that film could be distributed satisfactorily despite the low level of television's monitor registration when compared to fine movie prints, the film industry became a part of the television convention. More than that, however.

Filmmakers began to discover the documentary and its wide proliferation through electronic broadcast.

So -- among the forms of television are the live television broadcasts as we have outlined them plus the distribution of films made for television.

Added to which are those re-issues of the previously performed movie house film.

But there is still more. These are not all there is. And, generally speaking, it can be said that at management levels in the television industry, it is this last class which has given our public image its most debatable shape. These are the so-called cultural programs which, in the incredible history of television broadcasting, have employed every class and order described above, as well as combinations in every conceivable way.

There have been live broadcasts of cultural events.

There have been filmed broadcasts of cultural events.

There have been broadcasts of cultural events that were designed to appear live.

And there have been broadcasts of televised cultural programs that have employed all these combinations.

Often, so vague, so uncertain, so unrealistic are we concerning these events that it is unlikely that students of television practice would wholly agree on what, even, can be described as a cultural event.

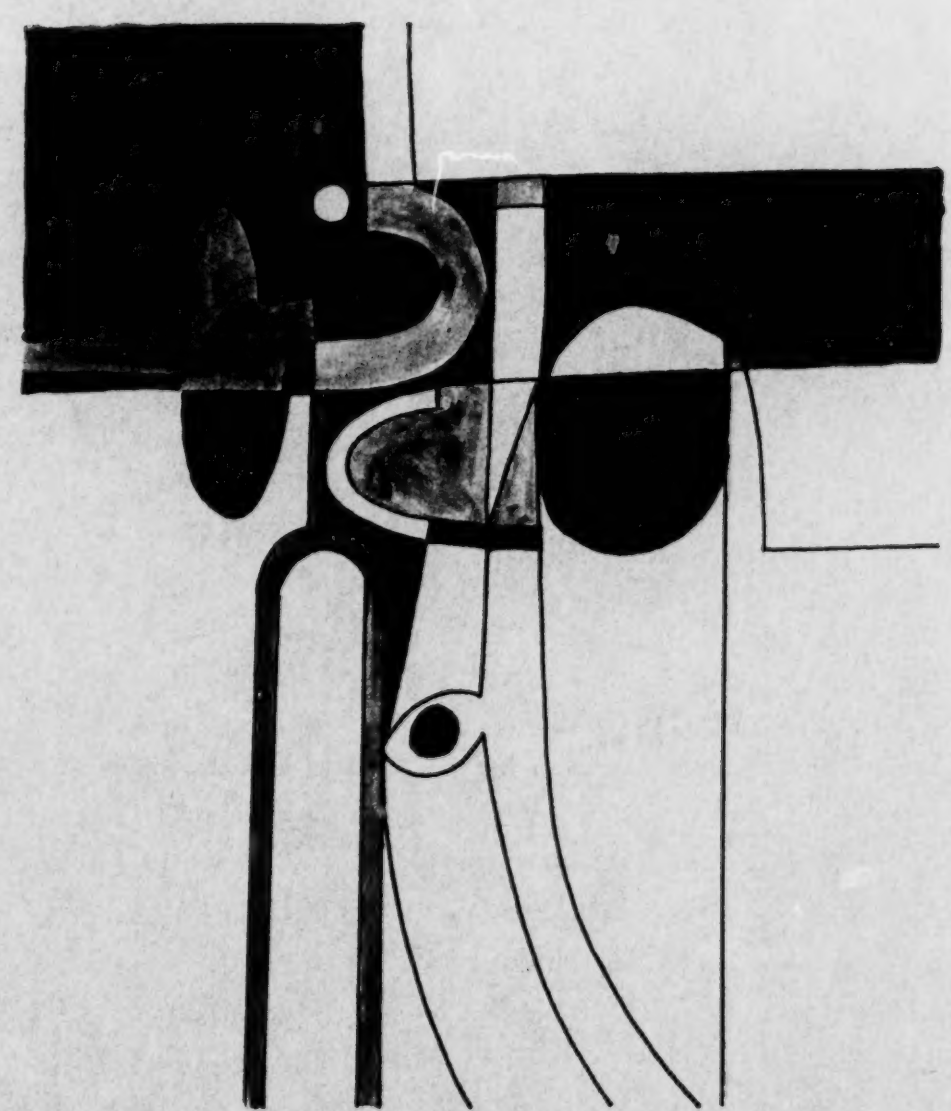
Proponents of current television practice have often gone so far as to suggest that since practice has established one order of experience as "news and public affairs," all other orders must be "cultural."

Music programs have been made and broadcast in all the various ways suggested above. Painting shows, dance programs, programs on sculpture, on architecture, on poetry, on the novel. "Theater" is frequently performed, or television variations of it, at the very least.

It is likely true that few serious students of art, however, would agree that much art has ever occurred in television.

Art and television have not joined in practice, and this may be partly true because the "cultural" program has appeared to preempt the possibility. This, coupled to the emphasis on television broadcast, may have been the inhibiting factors, as competition for high stakes in the marketplace began to shape its practice.

In exploring the nature of the medium, some have come upon another kind of television experience, another kind of program. And it is this kind of possibility that might make the artist feel he is welcome in the television environment.



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In order to examine how current television practice works, and how we might affect it by concerning ourselves with the medium as well as distribution, we will use an illustration drawn from our experience in the television studio.

Our illustration will not place us in the street, in the public stadium, or in the concert hall. We are examining practice as it does, or might, take place in a studio.

For simplification we will not be considering sound sources, at first. We will be concerned only with moving images of a visual character.

How shall we think about this?

Let's say our technical facilities make available three elec-

tric cameras, three videotape playback and record devices, and one film playback device.

In conventional practice some might say we have three pick up points, three sources. Because we have three cameras.

Another way of looking at it, however, will show that we have as many as six pick up points, six sources. Three cameras, two videotape playback devices, and one film playback device.

In this case, the third videotape machine is to be used for record primarily.

We are not here concerned with live broadcast. We are concerned with the pre-recorded, the "made" event. And, given the ways we have suggested thinking about this, we are attempting to create a condition which will permit the medium's unique character of "liveness" to occur.

Our illustration is a meeting point for our reflections.

Convention would organize this experience in essentially theatrical or motion picture terms.

The other possibility is the one we are calling "the mix."

In the former, the images to be contributed from the three cameras, the videotape and film playback devices are predetermined and timed as feeds leading to one another in essentially linear, story telling, willing-suspension-of-disbelief fashion.

In the latter, as many as six sources will feed images to the mixer who will determine their discrete relationships to one another

as it all happens in a time continuum common to all participants.

He has apprised himself of the potential in each of the possible six sources. What he does not know for certain is how they will be mixed together. He will let that happen to him and to all of those participating as it occurs in the time they will experience together.

In convention, the experience tends to be predetermined, produced, pre-planned, rehearsed where there is usually something like a script. Whether or not a script actually exists, those who are central to the recording are employing attitudes which are script-like. They will have a timed outline based upon previous experience of a like kind, or, at the least, upon the prediction of how the event "should" go.

In the new way, the mixers will be attending to possibilities within some previously circumscribed limits. Within such limits they will be anticipating considerable freedom of action. Each individual related to sources will be anticipating his participation. From various monitor faces situated elsewhere than in the mixing center, and for the cameramen, through viewfinders which will reveal not only their source-images, but a portion of the mix as well -- all are aware that within limits circumscribed by mutual understanding each will be asked to contribute to the final mix. And each is conscious of the fact that his contribution will affect that mix.

Given sophisticated and thoughtful people, this non-conven-

tional way of making offers a new kind of creative experience in television.

The richness of the experience of interdependence is very real and possible. Given an attitudinal base which joins them all, the old categories and definitions of who does what breaks down. All are part of the creative process.

In this condition, the term "engineer" becomes thoroughly blurred.

In conventional practice, the director and the technical director are central, though separate.

In the newer way, they are both mixers experiencing their centrality in a time continuum commonly shared, where subject, making, object, are all in process together.

The creative excitement -- yes, even mystery -- in this shared meeting is very much like the native human condition.

Though many unsatisfying attempts at the mix may precede the final selection, even in that process the natural human condition is sustained. And when, at last, the "lifeness" is caught in the final mix -- it is very difficult to be specific about who did what. About who made it.

One has the feeling that in its completeness, it is continuing to be made.

One can play it back again and again and again. And when it has been a satisfying and fully interdependent mix, one feels it is

occurring for the first and only time.

Let's return to our illustration. We will look at it from the view of those who sustain conventional practice.

The three cameras are in theater space. Whatever the cameramen are focusing their lenses upon has been designed and lighted as theater space.

With considerable respect for our work heretofore expressed in the history of television, any principle of organization, any formulation of an aesthetic has derived from our fundamental attitudes directed to the management of image in this space.

But, as we are considering our illustration, we are trying, also, to think about videospace.

Would line, mass, color be employed in the same way?

Videospace is of the ratio of 3 to 4 and is two dimensional. Theater space has no fixed ratio and is three dimensional. Videospace is closer to that in which the experience of film occurs. Theater space is more like that conformed by the stage and architectural space. Videospace is graphic and motion is inherent in it. As graphic, it is primarily presentational. Theater space is architectural -- volume, mass, plane -- and is essentially representational. In theater space, movement tends to be directed and formed as representational experience. Videospace, the surface being motion itself and movement being graphic, tends to be composed presentationally.

For those who are skilled in the management of movement in television theater space, the object is to transfer image from source to monitor with pictorial fidelity and with a kind of psychological fidelity that gives the impression that one is like the other. That is to say, the director who successfully composes in the theater space of television is very much like the director who successfully composes for the stage -- the experience each is striving to achieve is essentially natural, lifelike, sequential. Those who work in videospace are seeking an experience which is not pretense. It is what it is.

One often gets the impression that for those who work in the theater space of television, the experience occurs in the studio. For those who are discovering new ways of making in the medium, the experience occurs in videospace. There is no "suspension of disbelief" as is required in theater space, and as it is in the theater. Videospace contains the act. And there is little confusion about that. Any more than there is in a fine painting, a fine piece of print, or even, an imaginative movie whose makers are clear about what they're doing.

"Natural, lifelike, sequential" ---; what are these words about? They're about representational reality. Some words we might apply to the objects which occur in videospace are "referential, ambiant, non-objective." Is there an advantage of one over the other? Who knows? But there is a difference, a vast difference.

And it is to a recognition of this difference that we are asking that your attention be turned.

One is like narrative and target-oriented. The other is like music and if-you-are-there-you'll-get-it oriented. One is package. The other is process.

Recall why television was invented and we will better understand its history to this point.

Television convention has defined a class of participant as "creative talent."

Apart from those we name "performers" or "writers," there are two other principals: the director and the scenic designer, or art director. How do they function creatively?

The environment in which they have engaged television has been systematized for efficiency. For those who produce in television, "good business practice" is the guiding principle. Why is this so? Primarily because television practice has been developed in a profit oriented psychology. Profit is possible for those who "sell." Because television's distribution potential makes possible a large market for "selling," good business practice must prevail.

Our analysis is no less relevant to the non-commercial, or public broadcaster; for, his practice is shaped by the history and experience gleaned from those who manage for profit. His motives are wholly different, but his system practice is in many respects quite like the other.

Many of the activities of creative talent in television are shaped by good business practice.

Extracting a page from the recent history of the theater (whose history has fed radio and film before it), television has centered its creative effort in the director. Yet, despite these histories, so great and complex is the management of the television system in time that it is often possible to perceive the director more clearly when we think of him as organizer, or manager. Given this possibility, we are not surprised, therefore, to discover upon reflection that the producer/director function combined in one man suggests a most efficient way of doing things.

Can he function in the making of objectified experience in videospace? Very likely not. He's much too concerned with organization and management. Though the hierarchy which supports him calls him "creative talent," they think of him most centrally in good-business-practice terms.

What do we mean, "it is often possible to perceive the director more clearly when we think of him as organizer or manager"?

Well, let's think about his relationship to all the others; again, we must remind ourselves that in television there are many participants. No single individual can work in the medium whether his interests be in theater space or videospace. But, certainly, we all must agree that in either case the director is central.

Let's return to the studio of our illustration.

We have three cameras and three cameramen looking through their viewfinders. Each of these cameras is connected to a monitor. These connections are in the control room. CONTROL. We have two videotape playback machines. There are monitors for each of them in the control room. There is also a monitor for the film chain. All six source points have images available for selection. When these circuits are all open at the same instant, six monitors are revealing six different images.

Now, let us slow down the flow of electrons. We will think about one image on each of the monitors. We have stopped time insofar as the system is concerned. The medium has been halted in the flow of its nature.

What do we learn from studying these six monitors about the organizational and management capabilities of the director?

Well, for one, our monitors are showing us images from two kinds of sources. Three cameras are each displaying one "live" image. The other three machines are each displaying an image pre-recorded at some other time. Perhaps, even, another place.

How did the director get all this to this place in this time? It would have been impossible to have done it alone.

With respect to the live television cameras, he had to engage the minds of stage designer, lighting director, technical director. He needed three cameramen. And if there are one or more human beings in the studio who confront him -- people "on camera," as they

say -- he had to engage their minds. And if these people had words prearranged for them to speak, then he will have had to get involved with the thinking of those persons. And if this were the case, he will have had to meet with most of them in other circumstances, in other times. He will have had to "rehearse" that particle of the experience we are now seeing on each of the three camera monitors. These are the minimum number of people he has been engaged with.

It is likely that he will have talked with members of the crew who stand behind the scene designer -- the construction, the property and the staging people. Also he will have talked to the crew which stands behind the lighting director. He probably will have come in contact with those for whom the technical director is responsible, quite apart from cameramen. Certainly, whatever the frequency and duration, he will have been in touch with management people at many levels; programming, facilities scheduling, production personnel scheduling, the business office. This is planning of a complex sort. Process is in predetermination.

And all of this organization and management reflected in these three images silently frozen on camera monitors in the control room, all of it organized for the distribution of an experence predetermined for theater space.

Mind you, our illustration has not included audio. We are hearing nothing.

But this is not all of it, given the character of our illus-

tration; for, there are three other monitors facing him. What do they illustrate in the organizing and management capabilities of this director?

That, besides all else, he has, also, had to previously record the images on two separate reels of videotape. And a film camera crew was involved, as well!

At some point, television cameras were required so that there could be videotape storage of images for playback. The very most that could have happened beyond this is that the images stored on one of the videotapes may have come from a source place beyond the studio. The director may have had to take a mobile unit to some other location and select images from that location. The organization and management of that phenomenon is a story in itself. Since we have evidence of these two storage banks of videotape, then we must assume that our director has talked to these people. Where is he in the creative process? What <u>is</u> his creative process?

So -- what is left unaccounted for is the film whose image is the last we see along the line of six monitors. If he did not procure it through some library or film distribution source, then he had to manage its making himself. And if he did this, then he was into filmmaking which is as difficult and complex as is television. He has been involved with these people.

Now, as we look at these silent, still impressions on the monitor we know the director has had a great deal of help. He could

not have done it alone. And it is assumed that a capable director is able to get it done.

This is organization and management.

Then why in conventional television practice do we think of this person as central to the creative process? Or, is this what is regarded as creative in television? Yes, this is creative management. A director is assumed to be more, however. He is thought to be creative exclusive of that which concerns good business practice. He is thought to be creative in an artistic sense.

Can the director function as a mixer?

Yes, if those who manage the system regard him more as creative talent and less as organizer/manager/producer.

There are other ways of devising good business practice techniques.

But, more than this must follow. He must begin to think of himself in this newer way.

He must free himself from the influences of theater space, from influences of theater and motion picture history.

In theater space, he directs.

In videospace, he mixes.

When we ask "can he function?", what we mean to imply is that, though operations in one can be applicable to the other, the making process is quite different. And for one to move from director to mixer requires a fundamental change in attitude concerning the med-

ium. He must extricate himself from the process which leads to picking up and putting on -- and begin to think of the mix. He must get himself away from the habits which place his images in the studio, and begin to discover ways of mixing his images for videospace. He must try to discover for himself what we mean when we say the object and the act of the medium is not in theater space. It is in videospace.

Whether one is reflecting on the director, the technical director, or the mixer, one is concerning himself with central characters in this unfolding scheme. Each is absolucely central to the act. This is partly true because we are trying to move away from the literary experience toward a graphic one. We are trying to get our heads pointed away from discrete and towards referential. We are shifting emphasis. We are changing attitude. We are not asking that one be eliminated for the other. We are suggesting that one is reactive. The other is active. One is toward react. The other is toward act.

The term director in television is pointed toward react. The term mixer in television is pointed toward act. One represents.

The other presents.

In either case, the mixer/director is central.

In one the director has a script or a "shot" plan. In the other, the mixer has a design, a circumscribed area within which to function. In the former, it tends toward being predetermined. In the latter, it tends toward discovery. In one, the director is trying to give the impression of reality; he is representing. In the other, the mixer is spontaneously discovering reality; he is presenting that act.

In one the act is the result of creative management. In the other the act is the result of creative process.

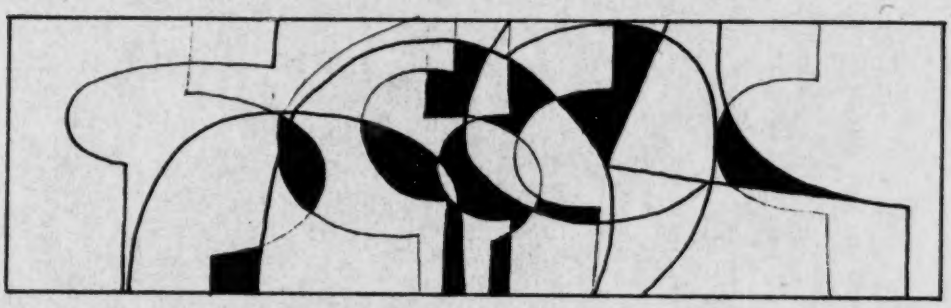
If the art impulse is to find another medium for its expression, then it probably will find it somewhere closer to that which we are calling videospace. Its means of expression will more likely occur in videospace. And if this turns out to be another aspect of the future, the artist will no doubt be sitting where the director does today. But he will be a part of another order. He will not be an organizer and a manager as the director is today. Someone else will be doing that.

And he will not be directing. He will be mixing.

In the class which is named "creative talent," there is another central figure; the scenic designer, or art director.

How does he function in conventional television? Is his work

shaped by good business practice too? Of course it is. But good business practice is not necessarily unreasonable. Efficiency is not to be maligned unless, of course, efficiency becomes so central that one's role as creative talent is forced into a subsidiary relationship. This need not be the case; though, often, it develops



that way.

Let us assume it does not.

How does an art director participate in a creative process now?

Essentially as one whose gifts have been shaped by the history of the theater.

Let's return to our studio illustration.

Three cameramen and their cameras are in the studio. What are they doing there? They are picking up photographic images selected from a three dimensional environment. Simultaneously, by way of technological management, others are supporting the system's capacity for converting these photographed images to electricity so that

they can be sent from the pick up points to the receiving points. Light and design in the theater space has been arranged to aid in this transfer. No wonder so many of us have the impression that it's happening in the studio. In theater space. Naturally. All the rest is simply a conversion to electricity. And a reconversion to photographic-like image at the other end.

So imposing is this principle of conversion that the designer must conform his vision to levels of illumination and the traffic pattern of electronic equipment. There may be a savage disagreement but it is the lighting director or the technical director who has the final word. Because they are responsible to the principle underlying conversion.

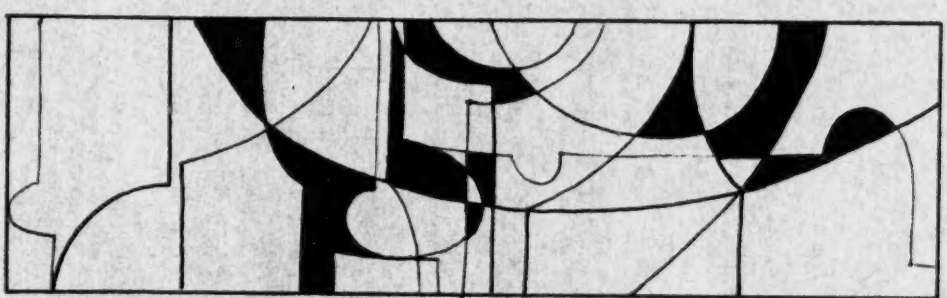
Is this relevant? Of course it is relevant. We are talking about "picking up" and "putting on." And if the photographed image cannot be seen on the other end, there seems to be no point to the effort.

It is not surprising that in the folklore of television there is a deep aversion to black. Not black color, mind you (though we know what a problem that is, too), but absence of photographed image. That is inefficient business practice in the business of broadcasting photographed images.

To continue our analysis of theater space -- let it not be overlooked that those in television who "create the environment" whether they are called set designers, stage designers or art di-

rectors, are men and women of the theater. Indeed, their interest or practice in the theater may have waned, but it is to principles that have come from stage design and theater architecture that they owe allegiance. Though their gifts with respect to mass, texture, line, plastic form, and color are often tremendous, they are only valuable if their efforts are pick-upable and put-onable.

It is not surprising when, standing at the back of the control room watching converted images extracted from their "sets," one catches a thoughtful glimpse of their faces as they look, often wistfully and discouraged, toward the studio, their theater space. They know where it is. It's not on the monitor more times than they can stand remembering. And yet, given these remarkable gifts, given this unusual dedication, which anyone in the system will attest to, think of all that these talented artists could bring to videospace.



So natural is the tension set up in the conversion principle that very often, apart from the engineer, it is the set designer/art director who has survived best by learning as much as possible about

what will happen when photographs of his environment are converted.

One cannot imagine getting along without him. Being a "seeing" artist, however, how marvelous it would be if we could welcome his graphic nature in ways natural to and compatible with the medium.

Videospace could expand and extend his gifts.

And finally, inasmuch as the medium is electronic -- and light and electronic energy are allied -- how appropriate it would be if we could discover ways of inviting our "seeing" artists to enrich the environment of videospace with their perceptions of light. Not illumination, mind you. Light!

Such consideration is to be especially welcomed as our appreciation and understanding of electric color increases.

We are thinking of artists of light. Not painters or sculptors, but those who intuit both. Light and texture combine in these intuitions. Form and color are one. Absence and presence are supportive. One does not exclude the other. Not sculptured representation; two dimensional presentation in which light energizes. Einsteinian motion, not Euclidian bulk. Electric color, not flesh-tone reproduction.

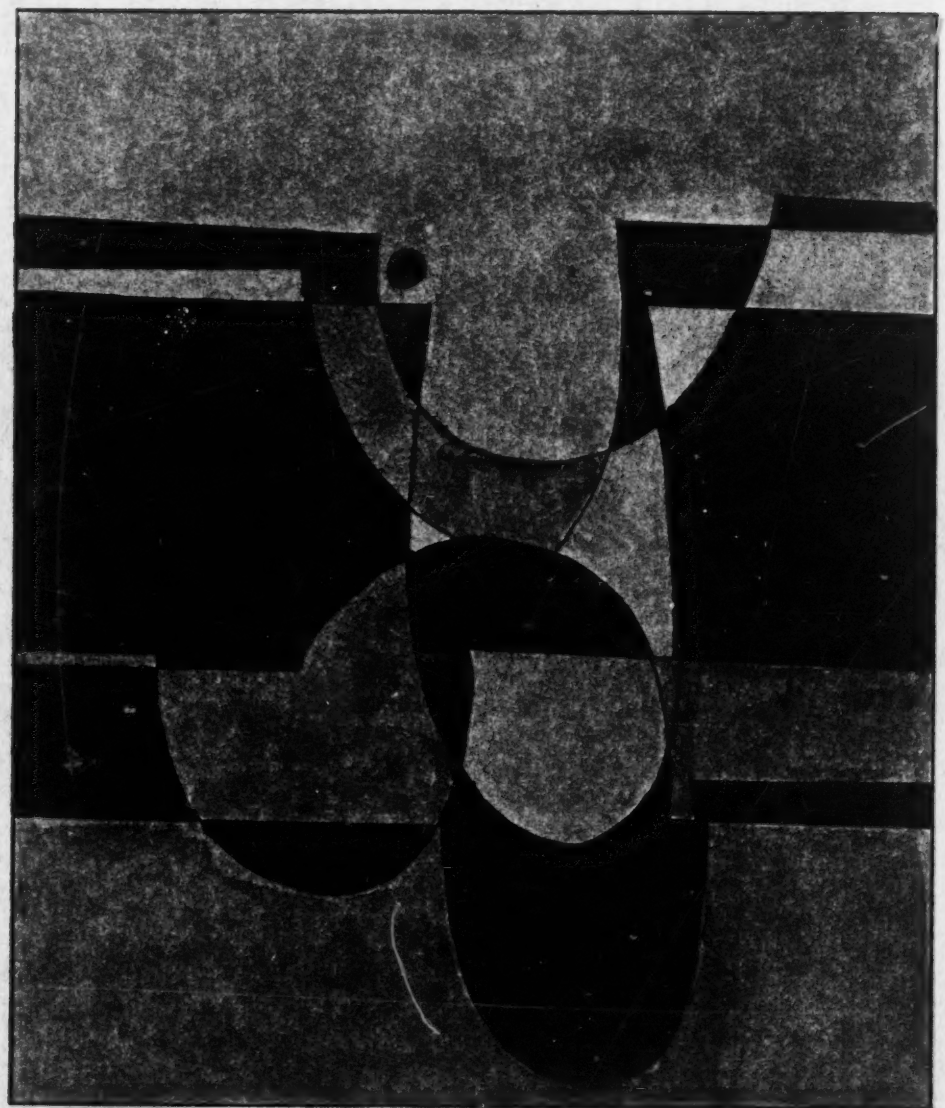
A mixer/artist, and an artist of graphic/texture/light, combining with all the others who participate in the creative mixing process will bring us to videospace, a field which is more than a terminal point at the end of a vast and efficient distribution system.

Their material will be the electron. Their tools will be instruments designed to sustain and enrich electric circuitry. Their medium will be television.

The "made" object will be the result of a final mix.

And the object will be "banked" for presentational replay on videotape.

Videotape technology has given us a means of retaining our creative efforts.



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Videotape and audiotape technologies have much in common. Just as a camera became a transducer following the principle of conversion pioneered by its predecessor, the microphone, so the two tape technologies follow one another. And the principle guiding the use of one tends to promote the development of the other. More important, however, is, again, the attitudes one brings to either, once the technologies exist.

The conversion principle developed in the audio transducer preceded those which gave us the electric camera. But, it was when the sound recordist became aware of the mix, that he began to extend our hearing in that medium. He began to think differently when he realized the possibilities which lay before him.

So it is with videotape recording.

As we begin to realize how to increase the extent of the conversion principle in visual contexts with videotape technology, we begin to look, and thus, to see differently.

And the new mix, combined of light and sound, lies before us.

Once the attitude shift begins, many remarkable changes follow.

We begin to accept new possibilities.

In the mixing center, six monitors face us. The images they reveal are motionless. We are preparing ourselves for the making process, the movement of the unformed towards form.

Our sources will be fed us by three cameramen. Pre-recorded images are banked and waiting to be released to us by the operation of two videotape machines. A sixth bank of images will be released from a film chain.

What may happen at this moment is possible only if we are prepared to think about this possibility with the same attitude the wood sculptor had in our earlier illustration.

We have a number of tools available to us: multiple pass recording, tape delay recording, yet-numberless variations of feedback, camera debeaming, chroma key, internal keys, external keys, superimposition, switching.

If we were to extend our illustration to include sound, we may have live potential, pre-taped and pre-mixed potential, disk, or

linear tape. We may have, even, a sound synthesizer at our disposal; a means for introducing electrical sound of infinite variety.

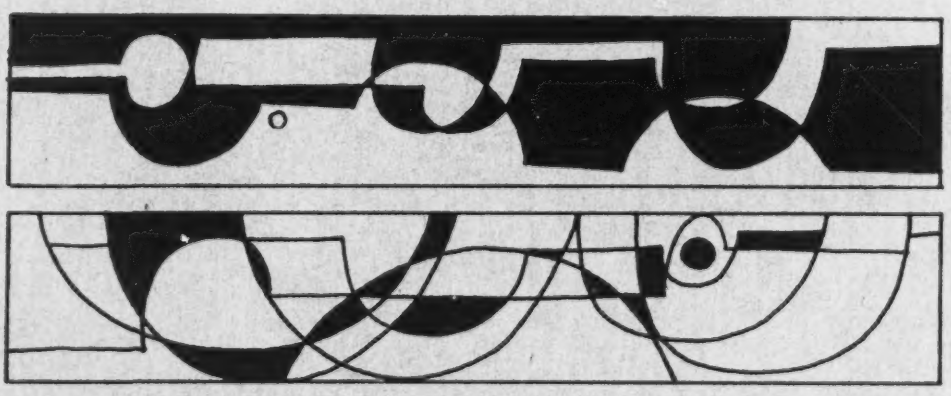
All these are tools.

We have a conception, a design for our making. We are each familiar with it to the extent we are capable. We have thought about it, talked about it, made sketches perhaps. We may have, even, something of an idea of what duration it will be. We have a subject matter, a content, we will seek to formalize.

We know that we are interdependent. We respect that relationship. We welcome it. It reinforces the interdependence of our human natures.

We understand our tools. We know the material is the electron and its flowing. We know the form will occur in videospace.

We do not know what the final mix will be.



When once we release the energy stored in these still images on six monitors, in the audio and videotapes, we will each become participants in the making process in a common time.

Maker, making, and motion-object will coexist.

What lies before us is a matter of considerable physical and psychological complexity.

Single words in single sentences will not easily describe the process, for, so much of the description is circumscribed by what all have agreed they will try to make.

That kind of particularity has to be reserved for a specific piece of work.

But, let's put a few of the tools in operation. Let's "un-still" the instruments. And release the images.

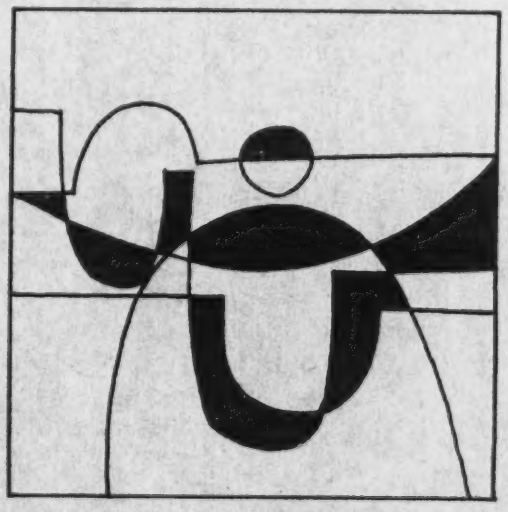
Videotape becomes more than a means of retaining the electronically generated experience. Videotape becomes a unique means of recording, reshaping and re-recording. The multiple pass emerges. It is somewhat like the multiple track of sound recording technology.

One layer is designed to introduce others. Each layer grows with the one which preceded it. And always a new unfolding occurs in a time continuum common to all. Little by little a rich composition emerges and feeds the next. And little by little the object appears, revealing the motions of each of its passing parts. Process, creative process is in all. The final mix is capturing the fleeting glimpses which each of the parts have introduced. Its dynamic na-

ture is lifelike.

Attitudes and ways learned from theater and motion picture practice are diminishing. Perhaps not disappearing altogether, but receding into the backgrounds of the mind. Something new is occurring, unlike its predecessors. Journalism and radio influences have been put aside altogether. Switching from one input to another is being superseded by a mixing. Mixing is more central to this process than switching.

The multiple pass is but one of the basic tools, however. Debeam one camera, and the converted light off one subject



changes. The image flows like wisps of milky clouds. If the light is colored, an essence embodying the original shape floats in the

field for a moment, then vanishes, leaving a trace of its color lingering in our minds. Before we can reflect upon it, a new combining has begun.

Internal keys in one pass serve external keys in another.

One camera is keyed over another. That is to say, the subject of one becomes the content of the other. One camera "photographs" newsprint reflected in a pool of water. Another "sees" a hand. The hand retains its recognizable shape, but its substance is water shimmering with newsprint words.

Superimpose the composition over another. The rhythm of the latter becomes the counterpoint of the former.

Dozens of feedback variations feed one another.

There are other possibilities. Many more. The variety is as infinite as the imagination, as rich as one's sought-for, vagrant thought lying fallow until a triggered connection reveals its composition and character.

What has heretofore been thought of as "effects" or "techniques" have now become tools to be employed in the shaping of an organic whole.

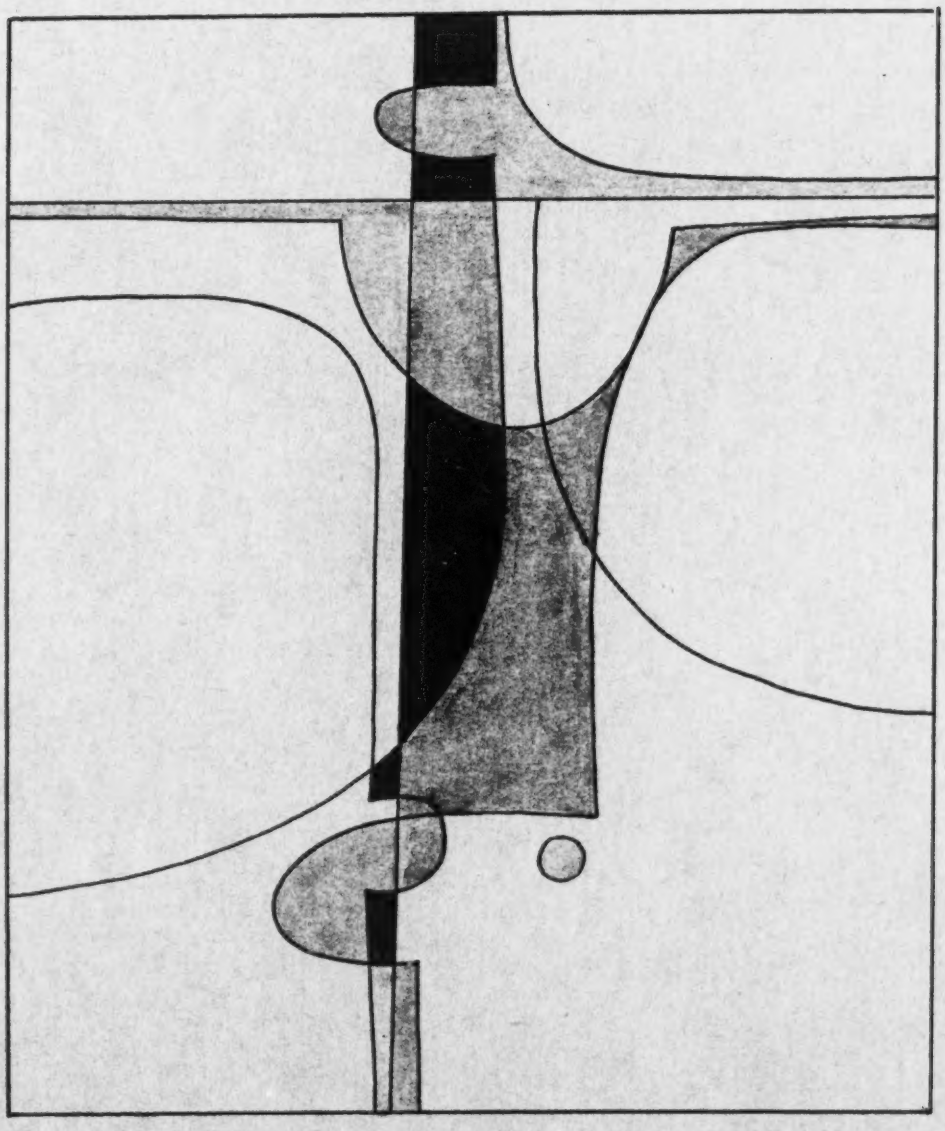
We can name them tools, because we have named a material and a making.

All this is possible because we have discovered a medium.

But our attitude regarding the medium must change if we are to make insightful objects worthy of our attention.

Learning to pay attention may be the key to unlocking the doors to change.

And now our illustration ceases.



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An historian might one day relate the history of television in somewhat the following way.

As sophistication developed, it became evident that the switcher was also a kind of instant editing device. This brought the process in which a number of people are engaged in the control room close to the filmmaker's process.

It also goes back to the motive for inventing television. The working out of the underbrush, for many, was the working out of the conflict between theater, film and radio feeds, so to speak.

Radio had learned its lesson from theater and journalism -- thus a very discrete and linear, literary based tradition was naturally assimilated by the newer medium. Switching from one input to

another is a very linear, non-graphic kind of order. But as those who felt they had mastered this radio-based method began watching their monitors -- they soon began to see moving photographs passing before them. And the history of filmmaking began to feed television. The switcher began to be used as a mixer, performing dissolves and supers, cuts and wipes, etc. Those in the control room began to function as editors. The switcher was evolving toward mixer. Those who directed television's aesthetic course were discovering in the theatrical line what those who had created in film had discovered some time before. As editors in the television control room, they were now able to photograph in non-sequential fashion. Their story telling was becoming more sophisticated. Their mixing sense was being refined.

With respect to all this, it is clear that film had advanced far beyond these capacities. But television had something going for it which is at the heart of electronics. It had time, the instant flow, the continuum. Its live broadcast capabilities gave it the power to introduce the unpredictability factor, as well. It was capable of being "live." Its source could be in one place and its images derived therefrom in many places simultaneously.

With journalism history feeding it in the live telecast, with radio history feeding it in the switcher, with film history feeding it in cameras and the switcher/mixer. With theater history as a parent to them all (unwelcome in journalism's case), television

began to move.

So close to film was television at this moment, so vast the potential for instant, simultaneous distribution was our history, that it was not surprising with what alacrity the industry incorporated the kinescoping process into its way of life.

Kinescoping was developed for storage and replay. Up to that point in our history, (other than film distribution through this broadcast means) television was strictly live.

But, since television broadcasting was an extension of a high profit motive directed to commercial interests, its law, among other concerns, began developing consciousness of property. And the only property anyone had which constituted an accurate representation of the live television broadcast was a kinescope negative. Indeed, numerous copies could be made from it. But these film copies of a television experience were of a relatively low calibre of fidelity -- especially when contrasted to what filmmakers had learned how to do exclusive of television. It was also expensive, this process; it added another step.

Since our time is the time of the electron it was natural to feed the problem into those minds which were trained to deal with it -- electronic engineers. They turned to sound recording and playback devices, added some sophisticated mathematics and circuitry with respect to sight. And the videotape recording and playback devices were introduced.

So great is the fidelity, that almost instantly this replaced the kinescope.

Now, we must move swiftly back to the switcher/mixer. For, when television directors began to look at their monitors, they began to think and respond filmically -- that history commenced to feed them. There was something the filmmaker had that they envied, however. It was his control. He could take his time.

When kinescope entered television's history some directors tried to use it as the filmmaker did. They tried to edit it at the cutting table. They tried to find a way to control their vision even more discretely. But it was almost impossible. It was of inferior technical quality. It didn't make sense to work this way.

So -- back in the control room; forget kinescope. Edit it on the wing. They mixed as best they could as time flew. But one thing those directors had. And it's likely the filmmaker envied them that. They could pick it up live, switch the photographs, mix the photographs, and send them all over the world, through transmitting devices to millions of receiving points where a waiting public had its receivers tuned to the appropriate frequency.

And then, one day, the engineers handed these remarkable directors videotape -- and all it implied. And a new stage in the evolution of the medium was upon us.

Though being "live" was marvelous, being "perfect" was better.

Now the directors who chose to follow this course were also able to eliminate the vagaries of live television. They also felt they had some of the mercurial graphic life of the filmmaker at their fingertips. They were no longer plagued by sequence. And for these individuals, unconsciously the switcher became the mixer. They were not only no longer "confined" by the live event with its myriad imperfections. They were now free to switch one videotape recording to another. They were able to take and retake -- as filmmakers had taught them to do. And, at last, they were not caught in the fierce irrevocability of the clock.

But, is all this good business practice? Yes and no. For those who manage the television broadcasting system there were many disturbing practices that began to develop. After all, television had been invented to transport moving photographs from one source point to a great many receiving points simultaneously. As many people as possible must have the images all at the same time. This is good business in a profit oriented environment. And indeed it is.

What were the disturbing practices? Well, for one, indeed it was a good idea to take out the flaws, but did it have to be so perfect that it took a dozen "takes" to get the desired sequence? That made the making process very costly. Also, if those practices were to be employed, why not go to film where higher fidelity and greater manageability could be achieved. Furthermore, a sophisticated complex of new equipment was required. Was all that necessary?

And so, little by little, this marvelous invention began to be used more and more as a printing and storage device for property some entity could own -- and sell.

Somewhat like publishing, but beyond its wildest reach, television is a vast distributing complex, picking up the photographed images representing someone's legal property, and transporting them to others who, in some way or other, must pay. So like publishing is this, that a copyright notice very often appears at the end of the program property.

But, whatever happened to the medium?

It's a curious paradox when we are reminded that it was the invention and subsequent use of videotape which seemed to inhibit the unfolding live experience in television. And yet it is videotape record and playback technology which has introduced us to an ever expanding creative possibility in the medium, a means of recapturing the "liveness" of the live broadcast.

How can we make something which is unique to television's nature? Something that will not be mistaken for a newspaper or a book or a poem, or a painting, or a piece of sculpture, or a play. Something that will not be a piece of music. How do we make something that is uniquely itself, given the qualities and characteristics which differentiate one medium from another?

What we are proposing in answer to our questions is this: first, we must acquaint ourselves with the medium exclusive of its

distribution capabilities; second, we must understand the concept of the mix, with a further understanding of how this will lead us to new and dynamic surfaces, from theater space to videospace. In this we must begin to appreciate the technology and instrumentation of videotape record and playback machines. Thirdly, we must welcome the new artist to his new place -- in the mixing center, where the director once sat. And we must relieve him of organization and management of the system so that he will be free to do what there is to be done -- to help us to make images that will invite our inner eyes to look and our minds to wonder about human possibility.

This will be no simple task. There are those who will undoubtedly feel the effort is not worth troubling about. Others will be quick to point out that economics will prohibit such an undertaking. And then there will be those who will not know what is being said.

Is there no way out of this dilemma?

Is the step worth taking? And who will be the first?

What images will appear in videospace to invite and touch a human individual in his privacy? Which has become so public because of television.

The theater is still here. He may leave his private place, and attend to it.

The motion pictures are here. And for this experience he can do the same.

Art is all around us, in many conceivable forms. And to these

manifestations he and those who share his privacy may turn.

He can reflect about himself and all of us through the literature we inherit. Books, magazines, newspapers.

He can live with his paintings and his sculpture, be they facsimile reproductions or original pieces he has gathered to increase his life.

And in doing all this, if he is attentive, whether he moves himself from privacy to public and back again, he finds himself always a part of process.

Like the electron, he can perceive himself as both particle and wave.

He is in change and in the condition of status quo. Always, unending. So long as he is alive.

And we who manage television.

What will we be doing?

What will we distribute? To help him and ourselves to creatively function. In this sea of air. Upon this uneven surface of the planet. Among one another who are so irrevocably bound to the interrelationships of our human acts. Occurring simultaneously in a common time continuum.

What will we be doing?

The National Center for Experiments in Television is a group of artists, technicians and scholars engaged in developing tools and practices for creative television and studying the image-based experiences in man's individual and social life. Its formal activities -- research, training and the making of videotaped works -- are interrelated in this ongoing search. The Center is principally supported by the Corporation for Public Broadcasting and the Rockefeller Foundation. The National Endowment for the Arts has also made grants for Center activities. It is associated with public television station KQED, San Francisco, and is located at 1011 Bryant Street, San Francisco, California 94103. Director: Brice Howard. Executive Director: Paul Kaufman.

design/William Roarty